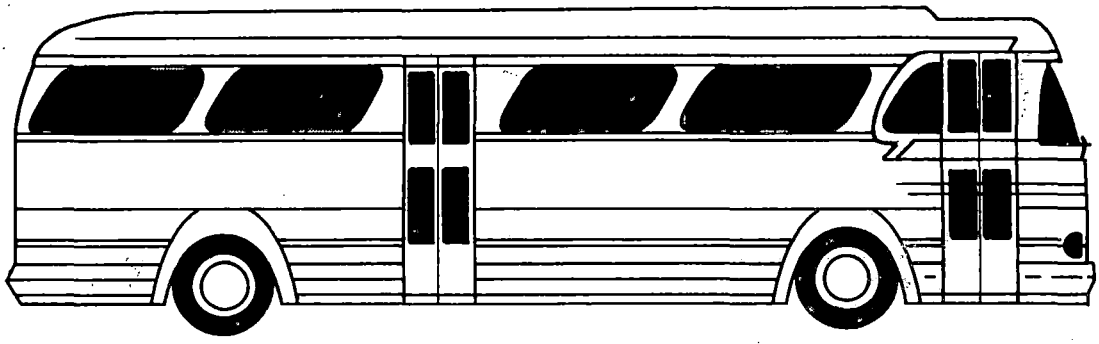
TRANSIT

Assistance Program for Iowa



FINAL REPORT

prepared for

Iowa Department of Transportation

DEPARTMENT OF TRANSPORTATION
IOWA

Final Report

TRANSIT ASSISTANCE PROGRAM

FOR

IOWA

submitted to

Iowa Department of Transportation

submitted by

Engineering Research Institute

Iowa State University

Ames, Iowa 50010

Project 1166

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16. Abstract

This final report provides an inventory of transit services in Iowa including urban transit, intercity passenger bus carriers and charter operators, taxicab operations, rural transit services, and special services. Also included are the results of questionnaires and interviews with officials of other states and the resulting recommendations for Iowa regarding a state transit policy, sources of revenue, programs for assistance to public transit, and performance tasks for personnel engaged in administering a state transit program.

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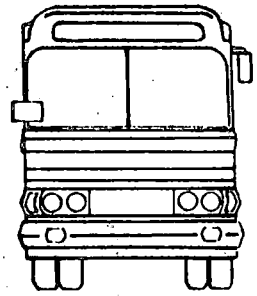

EXECUTIVE SUMMARY

Objectives of this research included an inventory of transit services in Iowa and recommendations to the Iowa Department of Transportation on transit policy, revenue sources appropriate for a state program of assistance to public transit, alternatives for an assistance program, and performance tasks for personnel involved in the administration of such a program.

In the conduct of this research, questionnaires were sent to all operators of urban transit properties in the state, and personal interviews were conducted with these operators. Information on intercity bus operations, rural transit services, taxicab operators, and other special services was obtained through a combination of mailed questionnaires, personal interviews, and telephone interviews.

Operating data are presented in this report for the years 1973 and 1974 for the 14 urban transit properties in Iowa. Historical data from 1959, to the extent that these are available, are also included for these properties and for two others that have ceased operations. The significance of urban transit in Iowa in 1974 is indicated by the following totals for the 14 properties:

Population served	1,064,000
Annual revenue passengers	13,428,000
Annual revenue miles of service	6,992,000
Annual operating revenues	$3,823,000
Annual operating expenses	$6,738,000

Even though there are 12 Class I carriers providing regularly scheduled intercity passenger bus service in Iowa, 18 cities that are either county seats or had a 1970 population of over 2500 lack bus service. Statistical data for these carriers are presented, and information is included on charter bus operations.

Sixteen operations are currently providing transit service in rural areas in 37 counties and parts of two other counties in Iowa. Details regarding the administrative structure, area served, funding, routes and schedules, usage, and fare structure are provided in this report.

The report also lists 77 taxicab operations serving 60 cities and describes 21 special services which provide transportation that serves a limited clientele or is otherwise different than conventional urban or rural transit properties or intercity bus carriers.

Principal input for transit policy recommendations, revenue sources, transit assistance programs, and performance tasks was provided by questionnaire responses from each of the 49 other states and interviews by study staff personnel with transit administrators in 22 other states. The other states selected for visits were those whose questionnaire responses indicated the most significant state role in administering a state program of transit assistance.

The transit policy recommended for Iowa as a result of this study includes the following aspects:

- Service by the Iowa Department of Transportation (DOT) to urban and rural transit operators as a centralized source of data and expertise.
- Support of a transit information program to make the public aware of the benefits and limitations of transit.
- Utilization of as much federal aid for transit purposes as will be of long-range benefit to the state.
- Continuance of urban transit service in those communities now having service with no diminution of service level.
- Establishment of new urban transit services in communities over 20,000 population that are without service.
- Sponsorship of transit demonstrations in some communities with populations of 10,000 to 20,000.
- Development and improvement of rural transit services.

Many states use a variety of revenue sources to support programs of transit assistance. Local communities similarly have utilized different forms of special levies to supplement general revenues in order to provide transit service and match federal transit funds. Their experience has led to the following recommendation concerning revenue sources to support transit in Iowa:

- State funds should be utilized along with local funds to match federal financial assistance to public transit.
- Local governments should be authorized to impose additional taxes by local option for the support of transit.

- Funds for a state program of transit assistance should be made available from the state general fund.
- A program should be undertaken to coordinate projects providing rural transit service.

Four alternative state transit assistance programs are presented as a result of this study. Program Level 1, at an annual cost of $200,000, would permit an essential state role in providing technical assistance but would not provide for state financial aid to transit. Several forms of financial assistance to local transit are provided for in Program Level 2, which would require $3,050,000 annually. Essentially all aspects of the recommended state transit policy could be carried out under Program Level 3 at an annual cost to the state of $4,150,000. Program Level 4 would require $6,250,000 in state funds annually but would permit financial assistance to intercity bus operators and expansion of both urban and rural transit services as well as a larger share of state support for operating assistance and capital improvements to transit properties.

Performance tasks are suggested for the professional-level personnel assigned to the Public Transit Division of the DOT. All of these tasks are essential to carry out a minimal level of state involvement in assistance to public transit and are independent of the number of personnel assigned to the Division. However, an analysis of the personnel assigned to this function in other states indicates a need ultimately for six professional-level personnel within the DOT for administering a state transit program.

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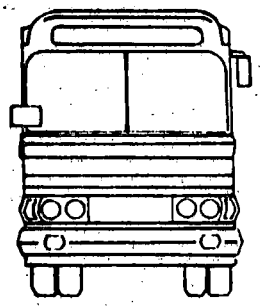


BACKGROUND FOR THE STUDY

The declining role of transit in urban areas is well known and has been extensively documented in the transportation literature. Increasing affluence of urban residents and the concomitant desire for greater mobility has led to two features of modern American life which act strongly against an extensive use of transit for personal travel. A pronounced trend toward greater dispersion in residential, commercial, and industrial development has occurred, rendering trip patterns so scattered that mass transportation forms are ill-suited to satisfying most current travel demands. The concurrent growth in automobile ownership, responsive to increased mobility and widely dispersed trip patterns, has afforded a generally suitable replacement for transit in a form that is both economical and convenient for a majority of urban trip-makers.

However, these changes have not occurred without some resultant disadvantages. Dispersed patterns of urban development have led to increases in the costs of providing urban services. Vastly increased use of the automobile has resulted in unacceptable demands for urban space and in an undesirable degradation of the urban environment. Increasing concern is also being demonstrated for those who have been denied a suitable level of mobility because they do not have access to an

automobile, particularly since the current level of transit service is generally inadequate to serve most origin-destination pairs. Impending shortages of petroleum have served further to suggest the necessity for a reevaluation of planning strategies for meeting urban travel demands.

Results of this study indicate that more than 35 states have asserted a significant role in planning, technical assistance, or financial support for local transit services. Iowa traditionally has not done so, even to the extent of failing to collect data concerning local operations. That the General Assembly intends for the Iowa Department of Transportation (DOT) to be in a position to offer substantial assistance to local transit properties is clearly indicated in the law creating the DOT in which the following responsibilities are assigned:

> "...the study of local and regional transportation of goods and people including intracity and intercity bus systems, dial-a-bus facilities, rural and urban bus and taxi systems, the collection of data from these systems, feasibility study of increased government subsidy assistance and determination of the allocation of such subsidies to each mass transportation system, such other physical and technical aspects which may be necessary to meet present and future needs and to apply for, accept, and expend federal, state, or private funds for the improvement of mass transit."

In the absence of a significant state role relative to transit, communities in Iowa have dealt directly with the Urban Mass Transportation Administration of the U.S. Department of Transportation. No state agency has been in a position to provide assistance or coordination of efforts so as to assure that the maximum benefit to the state may be derived from federal transit programs. The nature of this state-federal relationship has begun to change, however. In anticipation of the formation of the working elements of the DOT on July 1, 1975, arrangements have been effected to define a meaningful role and substantive responsibilities of the DOT relative to UMTA and its programs for transit planning, capital grants, and operating assistance. The recommended transit policy, programs, and performance tasks in this report further suggest an appropriate role for the DOT to enhance the effectiveness of federal transit assistance programs in Iowa.

Objectives

The purpose of this project is to assist in preparing the DOT to assume its responsibilities for the state's increased involvement with transit. To accomplish this purpose, the Engineering Research Institute is to recommend the strategies and organizational framework that will enable the DOT most effectively to meet its obligations relating to transit. The goal of such recommendations is to assist in providing citizens of Iowa with enhanced mobility and an improved living environment while utilizing more efficiently those resources expended for personal transportation.

This report includes recommendations for the organizational structure and performance tasks for the Public Transit Division of the DOT, which is responsible for carrying out the state's role in assisting urban and rural transit systems. Also included are recommendations, based on the study findings, as to an appropriate state policy regarding transit and alternative programs for financial assistance to local transit services. A desired result of these recommendations is to enhance the potential for transit in Iowa to provide that level of service most consistent with the economic and social well-being of residents of the state and visitors to the state. Specific study objectives were as follows:

1. To make an inventory of all of the existing transit operations in Iowa and to make such qualitative judgements concerning these operations as the data will permit.
2. To examine and evaluate, for applicability in Iowa, the policies of all other states relating to transit.
3. To examine the experience of other states relating to their programs for providing financial assistance to local transit services and, based upon this examination, to develop and

evaluate at least three alternative programs for possible application in Iowa.

4. To investigate revenue sources utilized in other states for a state transit-aid program and, based on their experience, to evaluate various revenue sources and recommend those most appropriate for Iowa.
5. To study the organizational structure and descriptions of performance tasks used by other states in discharging their role in respect to transit and thus to provide guidance in structuring the DOT so that it may most effectively carry out the legislative intent in Iowa relative to transit.

Scope of Study

The terms mass transit, public transit, mass transportation, and public transportation, although having distinct meanings, are sometimes used interchangeably. Mass transportation is defined to include taxicabs and has been interpreted by some to include use of private automobiles. Public transportation is a term appropriate to all intercity common carriers of persons, including rail and taxicabs as well as to other transit modes. The term mass transit appears to be inappropriate within the context of Iowa where population densities are quite low and where virtually all transit routes are lightly patronized. This report will therefore use the term transit to refer to those services which are the subject of this study. These services include all fixed-route urban operations and those other operations in urban areas or in low-density (rural) areas (including common carriers) that are intended to serve the

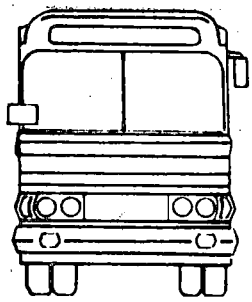
general populace, or a substantial portion thereof, excluding buses operated exclusively to transport pupils to or from schools.

The inventory of transit services in Iowa has been extended to include taxicab operations and a number of special services, as well as urban and rural transit operations and intercity bus carriers. The special services, although they may have a limited clientele, are of interest since they indicate the extent of involvement in transportation services by a variety of interest groups. They also serve to point out the multiplicity of funding sources which are available for transportation purposes. All urban transit properties that provide substantial service within the state, including interstate operations in metropolitan areas on the state borders were covered by the study.

Other states were contacted by means of questionnaires and personal visits. Copies of the questionnaires that were used are included as Appendix A. The first questionnaire, directed to the Governor of each state, was intended to determine the extent of interest in enlarging a state's role relative to transit and to solicit the name of an individual to whom a second more detailed questionnaire should be directed. Responses to the second questionnaire provided information relative to a state's program of assistance to transit and sources of any funds used for this purpose. A summary of questionnaire responses is included as Appendix B.

Further detail concerning transit programs and financing was afforded by personal visits by project staff personnel to 22 other states. Details as to organizational structure and information concerning state transit policy were also obtained during these visits. Selection of

states to be visited was made by project principals based on an evaluation of the significance of each state's role relative to transit, as indicated by its questionnaire responses. Appendix C indicates the states visited and the persons who were interviewed. Out-of-state visits were made during the months of January through March, 1975.



TRANSIT SERVICES IN IOWA

Introduction

Questionnaires were distributed to and returned by operators of both urban and rural transit services in Iowa, and personal visits by members of the study staff were subsequently made to all urban properties and to persons responsible for many rural operations. Telephone contact was effected with the other rural operations, intercity bus operators, and taxicab operators.

Unfortunately, reliable data are unavailable from several operations so that meaningful analyses of aggregated data are difficult or impossible. Most private properties that are being subsidized by a city have essentially abandoned efforts to retain counts of ridership and are often unwilling or unable to make financial data available. A further problem area is presented by many of the properties that have recently changed from private ownership to public ownership. This transition at best is likely to lead to a gap in the historical data about transit service and at worst may cause all earlier records to be discarded at the time owner-

ship is transferred. Rural transit operations are not likely to keep records of patronage and may not have useful financial data.

Data on urban properties presented in the next section cover operations in 1973 and 1974. A summary of earlier operating data, to the extent that these are available, is included as Appendix E to this report. Interpretation of these data affords a useful insight into the current status of transit service in Iowa.

Urban Transit Services

Urban transit patronage in Iowa, like that elsewhere in the United States, has declined sharply during the period since 1945. As a consequence, levels of service have been reduced and fares have been increased in an attempt to achieve a balance of sorts between revenues and expenses. There is ample evidence of a considerable price elasticity in transit ridership, particularly where service levels are low, so that fare increases have often been counterproductive and have severely reduced patronage with little or no increase in revenues (7). The inevitable result in Iowa has been a financial crisis for the transit operator and a confrontation with the municipality issuing a franchise for service. A municipality under these circumstances is faced with one of three alternatives, namely:

1. Permit the abandonment of service.
2. Utilize a public subsidy to continue service by a private operator.
3. Acquire the transit property and operate it by a public agency or authority.

Of 17 urban properties that were operating ten years ago in Iowa, three

(Fort Dodge, Fort Madison, and Muscatine) have gone out of business and their cities are currently without transit service. Four other cities (Ames, Marshalltown, Mason City, and Ottumwa) are currently subsidizing private operators. The other 10 cities all have a public agency or authority providing transit service.

Some indication of the difference in transit usage today as compared with that a generation ago is given in Table 1 for the only three cities in Iowa for which these data are available for 1950. These data indicate that, despite an increase of about 33 percent in the number of persons served in these three communities, transit patronage in 1974 was at a level only 15 percent of that in 1950. It should be noted, however, that after 28 years of decline in patronage, urban transit ridership in Iowa increased by about six percent from 1973 to 1974.

Table 1. Comparison of transit usage in selected cities, 1950 and 1974.

City	Annual passengers		Annual rides per capita	
	1950	1974	1950	1974
Des Moines	28,583,282	4,156,004	153.0	16.7
Dubuque	6,846,974	1,179,816	133.3	18.3
Burlington	2,920,784	328,196	90.6	9.4

The 14 urban transit operations currently providing service in Iowa are indicated in Figure 1 and in Table 2. It should be noted that

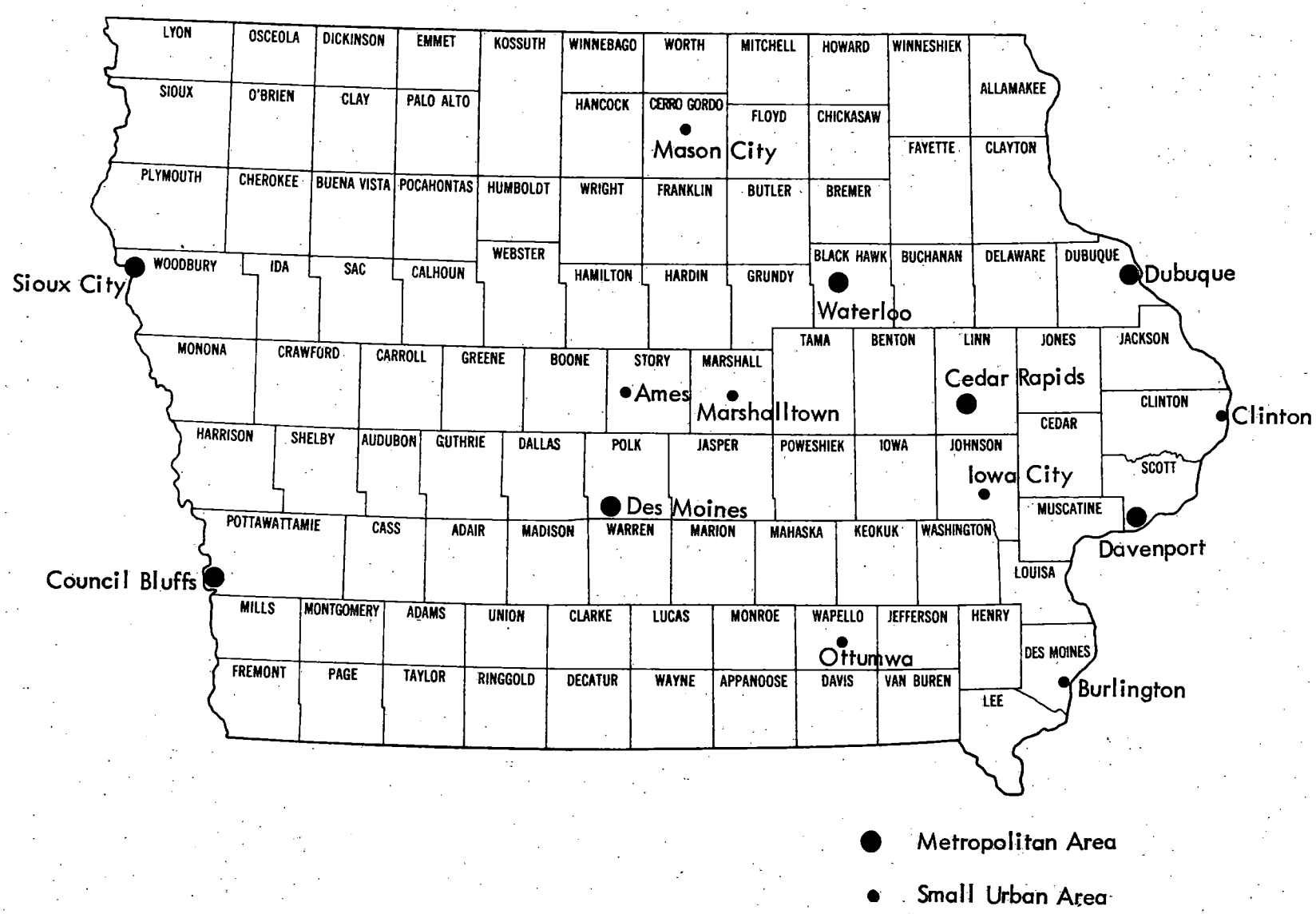


Figure 1. Urban transit services in Iowa.

Table 2. Summary of urban transit operations in Iowa, as of April 1, 1975.

City	Transit operator	Type ownership	Date of public ownership	Number of buses (active)	Number of routes	Base fare $
Metropolitan Areas						
Cedar Rapids	Regional Transit Corporation, Inc.	Municipal	1966	12	11	0.30
Council Bluffs	Metro Area Transit (Omaha)	Municipal	1972	16	7	0.40
Davenport	City Transit Authority	Municipal	1974	18	7	0.30
Des Moines	Des Moines Metropolitan Transit Authority	Regional	1973	72	15	0.50
Dubuque	Key Line	Municipal	1973	27	11	0.40
Sioux City	Sioux City Transit	Municipal	1963	21	11	0.25
Waterloo	Metropolitan Transit Authority of Black Hawk County, Inc.	Regional	1972	12	6	0.25
Small Urban Areas						
Ames	Midwest Transportation, Inc.	Private	——	3	3	0.30
Burlington	Burlington Urban Service	Municipal	1975	7	7	0.25
Clinton	Clinton Municipal Transit Authority	Municipal	1973	7	5	0.25
Iowa City	Iowa City Transit	Municipal	1971	15	10	0.15
Marshalltown	Marshall Motor Coach, Inc.	Private	——	2	3	0.25
Mason City	Public Transit Company	Private	——	3	3	0.40
Ottumwa	Ottumwa Transit Lines, Inc.	Private*	——	7	7	0.30

* Private contractor with Ottumwa Transit Authority.

the number of buses owned by a transit property changes quite rapidly. The figures in Table 2 include only those that are suitable for regular service, including standby buses, and are exclusive of buses normally used for purposes (charter, school bus, etc.) other than regular route service. A more complete inventory of buses owned and included in the regular-route fleet is provided in Table 3. The average age of all buses reported for this study is nine years, with a maximum of 25 years.

A summary of operating statistics for transit properties in 1973 and 1974 is presented in Tables 4 and 5, and some factors calculated from these statistics are shown in Tables 6 and 7. Operating costs are defined here in accordance with the "aggregate cost concepts" formulated by the American Transit Association (14) and include the following cost items:

Equipment, maintenance and garage

Transportation

Station

Traffic, advertising, etc.

Insurance and safety

Administration and general

Operating rents, net

Operating taxes and licenses

Depreciation

Amortization chargeable to operations

Data in Table 5 indicate that transit buses in Iowa in 1974 provided nearly 7 million revenue miles (distance traveled while a bus is on its

Table 3. Inventory of buses available to urban transit properties for scheduled operations, 1975.

City	Number of buses	Passenger capacity	Year(s)
Cedar Rapids	20	47	1965
Council Bluffs	Part of (Omaha) MAT active fleet of 154 buses, 36-45 passenger capacity, average age 13.6 years. 16 buses used for Council Bluffs service.		
Davenport	9	31	1974
	9	31	1967
	18		
Des Moines	25	45 to 52	1974
	6		1963
	5	for	1961
	5		1960
	8	all	1958
	4		1957
	4	buses	1956
	33		1955
	90		
Dubuque	2	45	1969
	2	45	1967
	2	45	1966
	4	45	1965
	4	45	1964
	8	37	1960
	2	37	1959
	3	37	1954
	27		
Sioux City	6	45	1974
	15	35	1969
	21		
Waterloo	4	35	1967
	17	35	1966
	21		

Table 3. Cont.

City	Number of buses	Passenger capacity	Year(s)
Ames	3	35	1967
Burlington	5	25	1975
	2	31	1975
	4	31	1949-1952
	5	35	1949-1952
	16		
Clinton	1	33	1970
	2	33	1969
	2	35	1968
	2	35	1967
	5	35	1964
	12		
Iowa City	2	25	1967
	2	25	1965
	14	45	1956
	18		
Marshalltown	2	31	1960
Mason City	3	19	1974
Ottumwa	10	32,36,40	Not Reported

regular route and is available to serve passengers) of service to carry 13.4 million passengers. The excess of operating costs to private and public operators over their operating revenues in that year was nearly $3 million.

The average resident in a community having urban transit service rode a bus 12.6 times in 1974, as shown in Table 7. (Population figures used for this calculation include suburbs that are part of a transit

Table 4. Operating statistics for transit properties in Iowa, 1973.

City	Passengers	Revenue miles	Operating revenue, $	Operating expenses, $	Operating deficit, $
Metropolitan Areas					
Cedar Rapids	1,185,064	722,527	343,718	444,762	101,044
Council Bluffs	728,721	528,858	252,972	389,523	136,551
Davenport	894,094	617,706	251,853	485,732	233,879
Des Moines	3,956,004	1,806,563	1,553,169	1,919,785	366,616
Dubuque	1,594,749	597,955	324,292	769,290	444,998
Sioux City	1,132,537	537,893	311,928	439,650	127,722
Waterloo	598,339	502,380	162,721	351,897	189,176
Subtotal	10,089,508	5,313,882	3,200,653	4,800,639	1,599,986
Small Urban Areas					
Ames	91,000*	87,000*	23,606	42,962	19,356
Burlington	195,919	243,411	66,760	120,213	53,453
Clinton	470,000*	305,000*	87,000*	234,000*	147,000*
Iowa City	1,303,824	471,477	195,569	409,760	214,191
Marshalltown	67,000*	71,000*	17,000*	36,000*	19,000*
Mason City	100,000*	90,000*	31,000*	49,000*	18,000*
Ottumwa	325,000*	203,000*	81,000*	187,000*	106,000*
Subtotal	2,553,000	1,471,000	502,000	1,079,000	577,000
Total	12,643,000	6,785,000	3,703,000	5,880,000	2,177,000

* Estimated.

Table 5. Operating statistics for transit properties in Iowa, 1974.

City	Passengers	Revenue miles	Operating revenue, $	Operating expenses, $	Operating deficit, $
Metropolitan Areas					
Cedar Rapids	1,392,183	764,882	415,679	606,993	191,314
Council Bluffs	742,845	527,810	271,260	453,758	182,498
Davenport	939,123	672,206	254,188	555,884	301,696
Des Moines	4,156,004	1,842,540	1,511,016	2,219,187	708,171
Dubuque	1,178,816	573,667	323,930	632,175	302,245
Sioux City	1,387,816	630,486	344,862	669,043	324,187
Waterloo	744,897	521,722	166,853	422,745	255,892
Subtotal	10,542,690	5,533,313	3,293,788	5,559,791	2,266,003
Small Urban Areas					
Ames	101,000*	104,000*	23,901	56,777	32,876
Burlington	328,196	244,377	51,403	158,379	106,376
Clinton	523,187	281,050	102,880	219,866	116,378
Iowa City	1,413,400	475,057	212,691	468,000	255,309
Marshalltown	85,000*	45,000*	21,237	40,350	19,113
Mason City	78,000*	90,000*	29,000*	47,000*	18,000*
Ottumwa	356,000*	220,000*	87,898	187,855	39,957
Subtotal	2,285,000	1,459,000	529,000	1,178,000	661,000
Total	13,428,000	6,992,000	3,823,000	6,738,000	2,927,000

* Estimated.

Table 6. Transit service indicators from operating statistics, 1973.

City	Rides per capita	Revenue miles per capita	Average fare, $	Average cost per revenue mile, $	Ratio revenue/ expense	Operating deficit per ride $
Metropolitan Areas						
Cedar Rapids	8.79	5.36	0.29	0.62	0.77	0.09
Council Bluffs	11.68	8.48	0.35	0.74	0.65	0.19
Davenport	8.83	6.10	0.28	0.79	0.52	0.26
Des Moines	15.42	7.04	0.39	1.06	0.81	0.09
Dubuque	23.05	8.64	0.20	1.29	0.42	0.28
Sioux City	11.68	5.55	0.28	0.82	0.71	0.11
Waterloo	5.49	4.61	0.27	0.70	0.46	0.32
Average †	12.15	6.40	0.32	0.90	0.67	0.16
Small Urban Areas						
Ames	2.2*	2.1*	0.26*	0.49*	0.55	0.21*
Burlington	5.60	6.96	0.34	0.49	0.56	0.22
Clinton	13.1*	8.5*	0.18*	0.77*	0.37*	0.31*
Iowa City	26.19	9.47	0.15	0.87	0.48	0.16
Marshalltown	2.3*	2.6*	0.25*	0.51*	0.46*	0.28*
Mason City	3.1*	2.7*	0.31*	0.54	0.63*	0.18*
Ottumwa	10.9*	6.8*	0.25*	0.92*	0.43*	0.33*
Average †	10.0	5.9	0.20	0.73	0.46	0.23
Overall average †	11.7	6.3	0.29	0.87	0.63	0.17

* Estimated.

† Weighted average.

Table 7. Transit service indicators from operating statistics, 1974.

City	Rides per capita	Revenue miles per capita	Average fare, $	Average cost per revenue mile, $	Ratio revenue/ expense	Operating deficit per ride $
Metropolitan Areas						
Cedar Rapids	10.47	5.75	0.30	0.79	0.68	0.14
Council Bluffs	12.10	8.60	0.37	0.86	0.60	0.25
Davenport	9.46	6.77	0.27	0.83	0.46	0.32
Des Moines	16.64	7.38	0.36	1.20	0.68	0.17
Dubuque	18.26	8.88	0.28	1.10	0.52	0.26
Sioux City	14.18	6.44	0.25	1.06	0.52	0.23
Waterloo	6.86	4.81	0.22	0.81	0.39	0.34
Average†	12.95	6.79	0.31	1.00	0.59	0.21
Small Urban Areas						
Ames	2.4*	2.5*	0.24*	0.55*	0.42*	0.33*
Burlington	9.43	7.03	0.16	0.65	0.32	0.33
Clinton	14.68	7.89	0.20	0.78	0.47	0.22
Iowa City	29.24	9.82	0.15	0.89	0.45	0.18
Marshalltown	3.1*	1.7*	0.25*	0.90*	0.53*	0.22*
Mason City	2.5*	2.9*	0.37*	0.52*	0.62*	0.23*
Ottumwa	11.9*	7.4*	0.25*	0.85*	0.47*	0.28*
Average†	11.6	5.9	0.18	0.81	0.45	0.23
Overall average†	12.6	6.6	0.28	0.96	0.57	0.22

* Estimated.
† Weighted average.

service area and were interpolated for 1973 and 1974 based on the 1970 U.S. Census and population estimates for 1972 and 1975 from the Iowa Office for Planning and Programming.) To place this figure in perspective, it may be assumed that a typical urban resident made something over 1000 total trips during the same year.

The quality of transit service provided to urban residents is indicated by the number of revenue miles per resident of the communities served by transit, also shown in Table 7. This factor takes into account the route coverage of a system as well as frequency of service. It is a much more definitive indicator of quality of service than a measure such as route miles, which is the total length of the routes upon which some service is regularly provided. All operations in Iowa had transit service levels below 10, a figure which is probably the lower limit for service levels which could be expected to be conducive to extensive use of transit in a community. Service levels below five suggest that transit is unlikely to provide an acceptable alternative for most urban trips.

The average fare shown in Tables 6 and 7 is obtained by dividing operating revenues by the number of passengers. It therefore accounts for the effects of reduced fares for students and others, the effective average fare from the sale of passes, and any additional charges for transfers. Also shown in these tables is the average operating cost per revenue mile of service and the average deficit (difference between operating cost and operating revenue) per passenger. It may be noted that the average transit passenger in Iowa in 1974 was subsidized by 22 cents per ride by a public agency providing or supporting transit service.

The ratio of operating revenues to operating expenses is also shown in Tables 6 and 7 for each property. A ratio of 1.00 indicates a break-even operation whereas a ratio below 1.00 is indicative of operating losses. All transit properties in Iowa suffered operating losses in 1973 and 1974. The definition of an acceptable ratio is, of course, a function of local goals and objectives for transit service. However, one state (Connecticut) has established a ratio of 0.60 as a minimum standard acceptable under most circumstances as part of their policy for providing financial assistance for local operating losses. It may be noted that 10 of the 14 urban properties in Iowa had ratios below 0.60 in 1974.

Estimated capital needs of urban transit properties in Iowa are shown in Table 8 for the five-year period 1976 through 1980. Note that the total of nearly $27 million does not include figures for Clinton, Marshalltown, and Ottumwa. These three communities currently are assessing capital needs to replace older buses and to otherwise upgrade systems that have received inadequate financial support. All other estimates were received from transit operators except for Ames, the estimate for which was prepared by the city.

Table 8. Estimated capital needs for urban transit properties in Iowa, 1976 - 1980.

City	New buses	Radio and station equipment	Shelters, benches, and signs	Garage and office modernization	Office and shop equipment	Supervision utility vehicles	Fare collection system	Total
Cedar Rapids	1,882,800	32,400	21,600	1,000,000	59,400	———	———	2,996,200
Council Bluffs*	1,727,146	24,884	176,812	1,020,000	20,000	19,600	19,348	3,007,790
Davenport	1,340,000	———	1,500	325,927	31,850	10,000	54,600	1,763,877
Des Moines	4,000,000	———	2,000,000	3,700,000	300,000	———	———	10,000,000
Dubuque	1,435,000	40,000	37,000	516,000	90,000	19,000	———	2,197,000
Sioux City	940,000	———	55,000	1,700,000	———	———	———	2,695,000
Waterloo	520,000	———	———	105,000	120,000	5,000	———	750,000
Subtotal Metro	11,904,946	97,284	2,291,912	8,366,927	621,250	53,600	73,948	23,409,867
Ames	476,200	38,900	44,000	457,500	54,700	4,800	6,000	1,082,100
Burlington	———	15,000	25,000	———	10,000	———	———	50,000
Clinton	Not established							
Iowa City	1,400,000	30,000	165,000	500,000	100,000	———	———	2,195,000
Marshalltown	Not established							
Mason City	None							
Ottumwa	Not established							
Subtotal small urban	1,876,200	83,900	234,000	951,100	164,700	4,800	6,000	3,327,100
Total	13,781,146	181,184	2,525,912	3,324,427	785,950	58,400	79,948	26,736,967

* At 10 percent of MAT total.

Intercity Passenger Bus Transportation

Even though most intercity passenger travel is by private automobile, a number of persons are transported by regularly scheduled intercity buses. Many people, in fact, are dependent upon this form of transportation since no other alternative is available to them. In addition to the more visible public intercity bus a number of persons travel (in groups) via charter operations. These operations may take the form of a specialized one-trip type of activity or repetitive trips to the same destination.

Only 367 of the 950 incorporated communities in Iowa had regularly scheduled intercity public bus service in 1974. Although constituting only 39 percent of Iowa's communities, those served by bus include most of the state's population.

Scheduled Bus Passenger Service

The companies that offer intercity passenger bus motor carrier service, for hire and along regularly (or irregularly) scheduled routes, are regulated as common carriers by the Iowa Commerce Commission. They must have a certificate of public convenience and necessity issued by that agency, according to Chapter 325 of the Code of Iowa. Table 9 contains a list of those companies legally authorized to operate as common carriers in Iowa as of April 1, 1975. Some of these companies also hold Federal Interstate Certificates with the Interstate Commerce Commission and operate nationwide. Others are regional, and a few are local in nature, functioning primarily as airport limousines. Those denoted by an asterisk were in active operation in April 1975. Figures

2 and 3 depict the 1975 motor bus route structure in Iowa and also list the active intercity bus companies.

Table 9. List of common passenger carriers holding certificates of public convenience and necessity as of April 1, 1975.

American Buslines, Inc.*
(Continental Trailways)
1805 Leavenworth
Omaha, Nebraska 68101

Arrow Stage Lines, Inc.
Norfolk, N.E. 68701
(Mailing Address - 1113 McDonald Street, Sioux City, Iowa 51103)

Fort Dodge Transportation Company*
One North 20th
Fort Dodge, Iowa 50501

Greyhound Lines - West Division*
371 Market Street
San Francisco, California 94106

Intercity Airport Transit Inc.*
Box 2506
Des Moines, Iowa 50315

Iowa Coaches, Inc.*
442 8th Avenue
Dubuque, Iowa 52001

Iowa Limousine Service Inc.
110 N.E. 40th Street
Cedar Rapids, Iowa 52402

Jefferson Lines, Inc.*
1114 Currie Avenue
Minneapolis, Minnesota 55403

Lane Brothers, Inc.
421 North Georgia
Mason City, Iowa 50401

Limousine Service, Inc.
P.O. Box 2084
Sioux City, Iowa 51101

Midwest Coaches, Inc.*
216 North 2nd Street
Mankato, Minnesota 56001

Missouri Transit Lines, Inc.*
104 North Clark Street
P.O. Box 632
Moberly, Missouri 65270

Reid Bus Lines*
Harlan, Iowa 51537

River Trails Transit Lines, Inc.*
340 Central Avenue
Dubuque, Iowa 52001

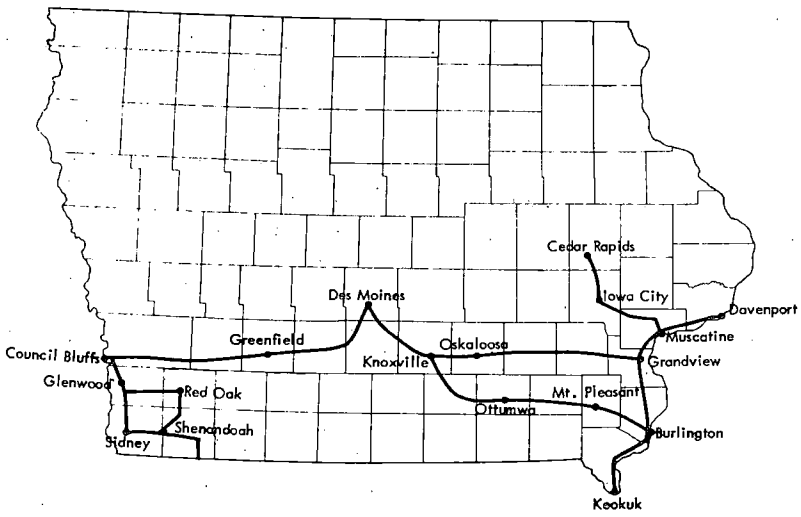
Scenic Hawkeye Stages, Inc.*
801 River Street
Decorah, Iowa 52101

Scenic Stage Line
606 Portland Avenue
Morrison, Illinois 61270

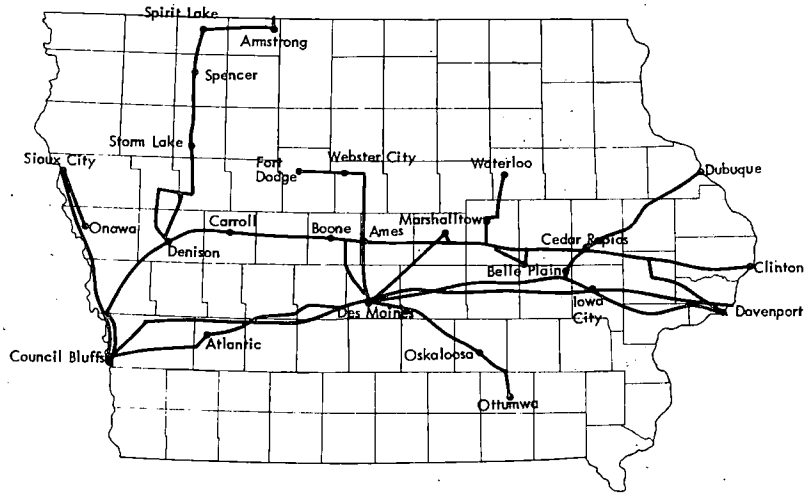
Sedalia-Marshall-Booneville Stage* Line, Inc.
Sedalia, Missouri
(Mailing Address - 5805 Fleur Drive, Des Moines, Iowa 50321)

*The 12 carriers identified operated regularly scheduled intercity passenger buses, over the route structures in Figure 2 and 3, in April 1975

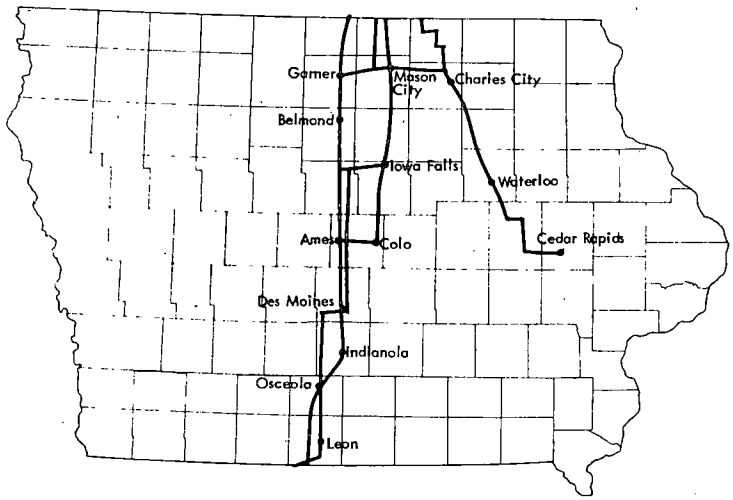
SOURCE: Iowa Commerce Commission, Motor Transportation Regulation Administration.



CONTINENTAL TRAILWAYS

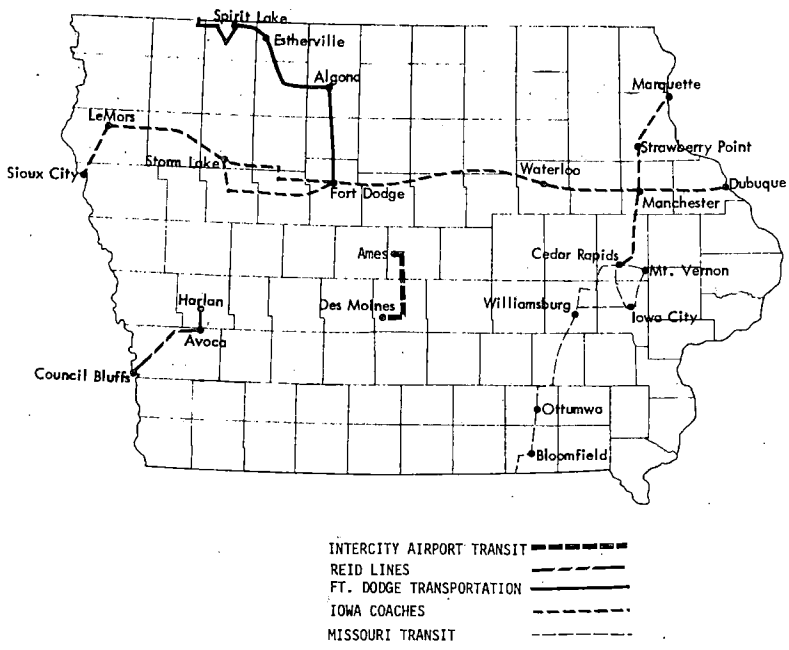


GREYHOUND



JEFFERSON LINES

Figure 2. Major bus company routes in Iowa, 1975.



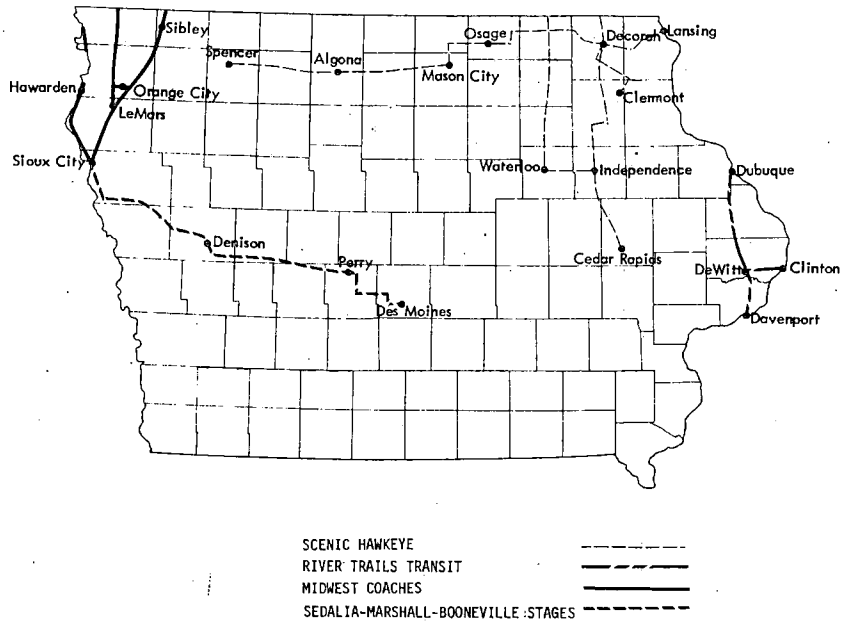


Figure 3. Other bus company routes in Iowa, 1975.

It is difficult to obtain data relative to the volume of persons using intercity buses, their origins, and their destinations. The Iowa Commerce Commission requires annual reporting, but only aggregated by company. Thus no data are available for individual cities, counties, or regions. Unfortunately, frequent delinquent reporting by individual companies renders reports for most years of limited usefulness. Table 10 contains a listing from these reports of passengers carried in the last two decades.

Individual bus companies thus afford the only source of information for the volume and the destinations of passengers from any particular city terminal. However, since only annual aggregated operations data are required by the Iowa Commerce Commission, company records usually do not afford a more detailed breakdown of operations. As each bus station agent reports associated activity, bus companies accumulate these data for annual reporting. Data from the reporting stations then are commonly destroyed. As a consequence, the local bus station affords the only dependable source of passenger data.

Research conducted by Iowa State University in 1973 and 1974 surveyed these local bus station records as a source of data. All tickets sold at nine cities in Iowa during one summer month were recorded. The summary results of these surveys are recorded in Table 11.

A definite trend to reduced intercity bus passenger service exists in Iowa. As a consequence, many Iowa counties have no intercity public transportation available for their citizens. Table 12 identifies 18 county seats or cities greater than 2500 population without intercity bus service.

The motor bus companies certificated for common carrier passenger operation in Iowa derive income from other sources. For example, all of

Table 10. Historical trend in motor bus passengers carried.

Passenger Motor Carriers		
	Class I	Class II
Year	Revenue passengers carried	Revenue passengers carried
1950	19,170,286	a
1951	18,279,438	a
1952	12,720,590	a
1953	8,955,733	a
1954	7,451,414	a
1955	2,493,976	a
1956	NA	NA
1957	NA	NA
1958	1,356,782	345,927
1959	1,387,705	99,929
1960	1,409,922	273,837
1961	1,163,402	262,390
1962	1,314,851	304,033
1963	1,224,298	176,144
1964	1,251,702	172,772
1965	1,115,646	177,114
1966	1,404,051	44,623
1967	1,543,024	43,789
1968	1,341,779	55,438
1969	1,130,181	71,451
1970	868,509	27,703
1971	1,125,062	32,984
1972	1,160,623	26,195

a - Included in Class I.

NA - Data not available.

Note: Class I carriers have annual gross operating revenues over $200,000; Class II carriers have revenues from $50,000 to $200,000. Specific year data may be incomplete due to delinquent reporting by companies.

SOURCE: Iowa Commerce Commission, Annual Reports.

Table 11. Bus ticket sales at selected Iowa cities for a typical summer month.

City Origin	Number of Tickets Sold					
	Iowa destinations		Other states destinations		Total	
	1973	1974	1973	1974	1973	1974
Burlington	577	732	601	475	1178	1205
Carroll	127	100	52	72	179	172
Creston	70	60	21	7	91	67
Decorah	183	201	295	222	478	423
Fort Dodge	591	662	474	450	1065	1112
Marshalltown	391	359	189	128	580	487
Mason City	815	1024	744	700	1559	1724
Ottumwa	572	562	285	334	857	896
Spencer	151	138	127	126	278	264

them offer charter services and express service, which is important not only as a revenue source, but also as a means of providing rapid delivery service for small packages at reasonable cost. Table 13 identifies the sources of revenue for all Iowa intercity bus companies.

The Iowa Commerce Commission annual reports contain certain summary information useful for an overview of bus company operations. Table 14 presents a passenger profile of the 11 Iowa bus companies. The number of passengers carried and the average length of trip are documented for a four-year period. As can be expected there are substantial differences, which are probably correlated with the extensiveness of each system as noted in Figures 2 and 3.

Table 12. Iowa county seats and cities with greater than 2500 population without intercity bus service, 1975.

County	City	Population
Adams	Corning	2,095
Appanoose	Centerville	6,531
Audubon	Audubon	2,907
Butler	Allison	1,071
Grundy	Grundy Center	2,712
Guthrie	Guthrie Center	1,834
Humboldt	Dakota City	746
Lucas	Chariton	5,009
O'Brien	Primghar	995
Pocahontas	Pocahontas	2,338
Poweshiek	Montezuma	1,353
Ringgold	Mount Ayr	1,762
Scott	LeClaire*	2,520
Taylor	Bedford	1,733
Union	Creston	8,234
Van Buren	Keosauqua	1,018
Wayne	Corydon	1,745
Wright	Eagle Grove*	4,489
		49,084

*Not a county seat.

SOURCE: Russell's Official National Motor Coach Guide.

Table 13. Revenue sources for Iowa bus operations in 1972.

Continental Trailways	
Passenger revenue	67%
Charter	19%
Express	13%
Other	1%
Fort Dodge Transportation	
Passenger revenue	2%
Charter	18%
Mail	78%
Express	1%
Other	1%
Greyhound	
Passenger revenue	71%
Charter	7%
Express	21%
Other	1%
Iowa Coaches	
Passenger revenue	46%
Charter	42%
Express	12%
Jefferson Lines	
Passenger revenue	60%
Charter	15%
Express	23%
Other	2%
Midwest Coaches	
Passenger revenue	59%
Charter	12%
Express	28%
Other	1%
Missouri Transit Lines	
Passenger revenue	62%
Charter	26%
Express	12%
Scenic Hawkeye Stages	
Passenger revenue	44%
Charter	44%
Express	12%
S-M-B Lines	
Passenger revenue	31%
Charter	69%
Reid Bus Lines	
Passenger revenue	89%
Charter	11%
River Trails Transit Lines	
Passenger revenue	72%
Charter	28%

SOURCE: Iowa Commerce Commission annual report, 1972.

Table 14. Passenger data for Iowa bus operations.

Company		Number of Passengers in Thousands			
		Regular fare passengers	Charter passengers	Total passengers	Average miles traveled per passenger
Continental Trailways	1973	159.6	20.0	179.6	139.2
	1972	142.0	18.2	160.2	142.1
	1971	79.5	15.1	94.6	239.7
	1970	72.7	15.5	88.2	255.7
Fort Dodge Transportation	1973	NA	NA	NA	NA
	1972	5.4	27.2	32.6	10.6
	1971	6.1	39.9	46.0	NA
	1970	NA	NA	NA	NA
Greyhound	1973	700.3	43.0	743.3	121.6
	1972	629.5	46.6	676.1	123.8
	1971	646.9	44.6	691.5	120.8
	1970	668.0	42.2	710.2	111.3
Iowa Coaches	1973	59.8	50.1	109.9	50.3
	1972	62.0	47.6	109.6	89.2
	1971	65.4	0	65.4	88.6
	1970	65.0	0	65.0	84.6
Jefferson Lines	1973	201.4	13.9	215.3	103.4
	1972	166.9	21.9	188.8	102.3
	1971	173.8	21.0	194.8	102.3
	1970	0	19.6	19.6	102.9
Midwest Coaches	1973	24.4	0.8	25.2	81.4
	1972	23.9	1.7	25.6	78.6
	1971	28.7	1.8	30.5	80.9
	1970	0	1.9	1.9	81.0
Missouri Coaches	1973	54.4	2.3	56.7	64.0
	1972	34.6	2.7	37.3	80.1
	1971	35.4	2.9	38.3	76.0
	1970	36.9	5.6	42.5	65.2
Reid Bus Lines	1973	11.4	0	1.4	
	1972	1.3	0	1.3	NA
	1971	1.5	0	1.5	
	1970	1.9	0.1	2.0	
River Trail Transit Lines	1973	9.1	7.9	17.0	
	1972	8.1	4.6	12.7	NA
	1971	9.3	4.8	14.1	
	1970	9.1	8.3	17.4	

Table 14. Cont.

Company		Number of Passengers in Thousands			
		Regular fare passengers	Charter passengers	Total passengers	Average miles traveled per passenger
Scenic Hawkeye Stages	1973	68.4	23.4	91.8	99.7
	1972	67.2	18.9	86.1	107.3
	1971	67.2	17.8	85.0	123.5
	1970	0	14.9	14.9	102.6
Sedalia-Marshall-Booneville Stage Line	1973	22.0	19.1	41.1	70.3
	1972	20.4	18.7	39.1	73.2
	1971	22.6	18.5	41.1	53.3
	1970	25.3	17.8	43.1	63.4

NA - Data not available.

SOURCE: Iowa Commerce Commission annual reports.

Table 15 is included to provide a revenue/expense profile of each bus company. Data on transportation revenue and operating expense for Iowa operations were obtained from the Iowa Commerce Commission annual reports. The operating ratio was obtained by dividing operating expense by transportation revenue. Since a number of items (such as taxes) are not included, a firm needs an operating ratio significantly less than 100 to maintain a profitable operation.

It is apparent that there is a paucity of bus passenger data available for transportation planning purposes. The approximately 375 local bus station agents periodically forward accumulated bus ticket information to the operating bus companies. These firms may or may not retain data records at this local level. Operating bus companies are generally concerned only with the financial aspects, so that local

Table 15. A revenue-expense profile for Iowa operations by intercity bus companies.

		Total transportation revenue (in thousand dollars)	Total operating expenses (in thousand dollars)	Iowa operating ratio (in percent)
Continental Trailways	1973	1630.1	1272.5	78
	1972	1282.5	1026.5	80
	1971	1230.5	809.1	66
	1970	1104.4	1014.0	92
Fort Dodge Transportation	1973	NA	NA	NA
	1972	1245.7	1196.5	96
	1971	NA	1184.2	NA
	1970	NA	NA	NA
Greyhound	1973	4496.9	4516.3	100
	1972	4111.2	4084.0	99
	1971	3955.0	3927.7	99
	1970	3847.0	3763.1	98
Iowa Coaches	1973	603.8	443.4	73
	1972	550.4	389.5	71
	1971	553.7	383.3	69
	1970	522.0	462.5	89
Jefferson Lines	1973	1498.3	1317.9	88
	1972	1292.5	1151.1	89
	1971	1252.1	1098.0	88
	1970	1210.6	1062.5	88
Midwest Coaches	1973	107.4	125.9	117
	1972	106.4	105.2	99
	1971	120.2	125.9	105
	1970	104.5	96.0	92
Missouri Transit Lines	1973	196.6	189.6	96
	1972	191.4	178.0	93
	1971	163.1	149.3	92
	1970	168.7	152.3	90
Reid Bus Lines	1973	5.7	NA	NA
	1972	5.7	NA	NA
	1971	4.1	17.1	418
	1970	5.6	21.4	383

Table 15. Cont.

		Total transportation revenue (in thousand dollars)	Total operating expenses (in thousand dollars)	Iowa operating ratio (in percent)
River Trail Transit Lines	1973	59.6	94.7	159
	1972	49.7	72.6	146
	1971	49.5	72.0	145
	1970	79.0	89.7	113
Scenic Hawkeye Stages	1973	352.3	305.4	87
	1972	325.0	281.2	86
	1971	339.7	337.8	99
	1970	240.0	293.4	122
Sedalia-Marshall-Booneville Stage Line	1973	355.5	269.1	76
	1972	325.5	228.1	70
	1971	309.7	209.7	68
	1970	301.3	194.6	65

SOURCE: Iowa Commerce Commission annual reports, except operating ratio calculated from available data which may not include all applicable expenses and revenues.

passenger boardings and origin and destination details are soon lost, except as aggregated annual data. The Iowa Commerce Commission has been concerned primarily with entry into the market, with financial aspects, fares, and routes. Thus, with no regulatory requirements for reporting passenger travel characteristics at the micro-level, such data do not exist.

Charter Passenger Service

Charter passenger service in Iowa is regulated in three forms: (1) Chapter 325, Code of Iowa, specifies that possession of an Iowa certificate of convenience and necessity as a passenger common carrier

also allows that company to conduct charter operations. Those companies listed in Table 9 are thus eligible for charter service operation. (2) Chapter 325, Code of Iowa also specifies that the Iowa Commerce Commission may issue a certificate of convenience and necessity specifically for charter service. Table 16 identifies those companies currently holding active charter service certificate. (3) In addition to the above noted intrastate certificated charter carriers, a number of out-of-state operators have charter service rights in Iowa. Any company holding a valid federal certificate for interstate common carrier or charter carrier operation may apply for registration in Iowa. The Iowa Commerce

Table 16. List of carriers holding charter certificates of public convenience and necessity as of April 1, 1975.

City Transit, Inc. 722 South Federal Avenue Mason City, Iowa 50401	Marshall Motor Coach 10 South 8th Avenue Marshalltown, Iowa 50461
Scenic Stage Line 606 Portland Avenue Morrison, Illinois 61270	Iowa City Coach Company, Inc. 1306 South Gilbert Street Iowa City, Iowa 52240
Midwest Transportation, Inc. 1501 East Lincoln Way P.O. Box 643 Ames, Iowa 50010	Northland Bus Company 114 - Third Street, N.W. Mason City, Iowa 50401
Fort Dodge Transportation Company One North 20th Street Fort Dodge, Iowa 50501	Ottumwa Transit Lines, Inc. 1414 West Second Street Ottumwa, Iowa 52501
	Charter Coaches, Inc. 1878 Cold Stream Avenue, N.E. Cedar Rapids, Iowa 52402

SOURCE: Iowa Commerce Commission, Motor Transportation Regulation Administration.

Commission, for a small fee, will register that company. These registration files are not summarized or reported by the Commission.

In April 1975 there were 174 valid registrations of this nature on file. These interstate registrations were from 36 different states, with the highest number from Canada (19), New Jersey (19), Pennsylvania (18), Minnesota (16), Illinois (15), and New York (13).

A survey of all bus companies holding Iowa charter certificates was conducted in April 1975. Information was sought relative to the number, age, and types of buses in operation, the mileage traveled in Iowa, and the extensiveness of operations in other states. Table 17 records the result of this survey. Large interstate companies such as Greyhound, Continental Trailways, and Jefferson Lines have a substantial pool of charter vehicles to draw from at any time. Consequently, an exact number of buses available for charter can not be recorded. Table 17 does, however, provide an overview of the normal pool of vehicles available for

Table 17. A survey of Iowa charter carriers.

Company	Operations in other states	Number and type of buses available for Iowa charter
American Buslines* 1416 Locust Street Des Moines, Iowa 50309	All	Variable according to need, no estimate available.
Arrow Stage Lines, Inc.* 1113 McDonald Street Sioux City, Iowa 51103	All	11 buses, 1962 to 1974 and 39 or 47 passenger usually assigned to Iowa.
Charter Coaches, Inc. 1878 Cold Street Ave. N.E. Cedar Rapids, Iowa 52402	All	13 buses, 11 to 49 passengers. 1965 thru 1975.
City Transit, Inc. 722 South Federal Avenue Mason City, Iowa 50401	No charter activity.	

Table 17. Cont.

Company	Operations in other states	Number and type of buses available for Iowa charter
Ft. Dodge Transportation* One North 20th Street Ft. Dodge, Iowa 50501	All	10 buses, 1965 and newer, 39 or 49 passenger.
Greyhound Lines* Des Moines, Iowa 50309	All	Variable according to need, 25-30 estimated.
Iowa City Coach Co., Inc. 1306 South Gilbert Iowa City, Iowa 52240	No charter activity.	
Iowa Coaches, Inc.* 442 8th Avenue Dubuque, Iowa 52001	Wisc.	19 buses for both regular and charter service, 1964 to 1974, 39 or 47 passenger.
Iowa Limousine Service, Inc.* 110 N.E. 40th Street Cedar Rapids, Iowa 52402	None	3 buses, 20 or 30 passenger.
Intercity Airport Transit, Inc. Box 2506 Des Moines, Iowa 50315	No charter activity.	
Jefferson Lines, Inc.* 1114 Currie Avenue Minneapolis, Minnesota 55424	All	92 total available in Iowa as needed, 1969 to 1974, 39 to 47 passenger.
Lane Bros., Inc.* 421 North Georgia Mason City, Iowa 50401	All	1 bus, 8 passenger, Ford Econoline
Limousine Service, Inc.* P.O. Box 2084 Sioux City, Iowa 51101	No charter activity.	
Marshall Motor Coach 10 South 8th Avenue Marshalltown, Iowa 50461	All	8 buses, 3 - 41 passenger, 5 - 39 passenger, 1957 to 1967.
Midwest Coaches* 216 North 2nd Street Mankato, Minnesota 56001	All	11 buses total, 3 for charter and possibly 3 more depending on time of day, 1965 to 1974, 38 through 47 passenger.

Table 17. Cont.

Company	Operations in other states	Number and type of buses available for Iowa charter
Missouri Transit Lines* 104 North Clark Street Moberly, Missouri 65270	Missouri	2 buses for use in Iowa, more as needed, one 1958, others 1962 to 1975.
Midwest Transportation, Inc. 1501 East Lincoln Way Ames, Iowa 50010	None	3 buses, 1959 - 39 passenger, 1963 - 46 passenger, 1967 - 39 passenger.
Northland Bus Co. 114 3rd Street, N.W. Mason City, Iowa 50401	All	2 buses, 39 passenger, 1966 and 1968, 1 owned, 1 leased.
Reid Bus Lines* Harlan, Iowa 51537	Nebraska	2 limousines, 12 passenger, 1966 and 1969.
Ottumwa Transit Lines 1414 West 2nd Street Ottumwa, Iowa 52501	None	3 buses, 47, 41, 38 passenger, 1958, 1956, 1960.
River Trails Transit Lines* 340 Central Avenue Dubuque, Iowa 52001	All	11 buses, 47 passenger, 1971 1974.
Scenic Hawkeye Stages* 801 River Street Decorah, Iowa 52101	All and Canada	24 buses total, 7 primarily for charter, 1966 through 1975, 40 to 47 passenger.
Scenic Stage Lines* 606 Portland Avenue Morrison, Illinois 61270	Illinois	4 buses, 1965, 46 passenger.
Sedalia-Marshall-Booneville* (Hawkeye Tours) Des Moines, Iowa 50321	All	8 buses, 7 - 47 passenger, 1 - 39 passenger.

*Denotes those firms holding a common carrier passenger certificate.

charter service by Iowa-based firms. The mileage traveled in Iowa was not available.

The number of annual charter passengers carried in Iowa is recorded

in the Iowa Commerce Commission annual reports. However, not all those firms identified in Table 17 appear in these reports, only those firms holding common carrier passenger certificates. Table 18, therefore, presents a profile only of the major charter passenger activity in Iowa.

Table 18. Charter fare passengers carried in Iowa.

Company	Passengers, in thousands			
	1970	1971	1972	1973
American Bus Lines	15.5	15.1	18.2	20.0
Arrow Stage Lines*	4.2	4.4	2.2	6.0
Fort Dodge Transportation	--	39.9	27.2	--
Greyhound	42.2	44.6	46.6	43.0
Iowa Coaches	--	--	47.6	50.1
Jefferson Lines	19.6	21.0	21.9	13.9
Midwest Coaches	1.9	1.8	1.7	0.8
Missouri Transit Lines	5.6	2.9	2.7	2.3
Scenic Hawkeye Stages	14.9	17.8	18.9	23.4
SMB Stage Lines	17.8	18.5	18.7	19.1
Lane Brothers, Inc.*	0.1	0.1	0.1	--
Reid Bus Lines	0.1	--	--	--
River Trails Transit Lines	8.3	4.8	4.6	7.9
Scenic Stage Lines*	--	--	6.4	5.9
	130.2	170.9	200.6	192.4

*Denotes a firm that does not operate a regularly scheduled intercity passenger bus over a specified route as presented in Figures 2 and 3. They do, however, hold common carrier passenger certificates.

SOURCE: Iowa Commerce Commission annual reports.

Rural Transit Services

Rural transit is defined herein to mean a service using buses, vans, or automobiles operating primarily in rural areas to provide transportation to the general public or to a significant portion thereof. School bus service and common carrier operations are not included.

The term rural is variously defined depending upon one's frame of reference. In the context of current federal transit legislation, rural is defined to include any place with a population less than 50,000. In other definitions, rural is considered to include cities with less than 5000 population. The definition used here is that of the Bureau of Census wherein rural is defined to include all areas outside of communities with populations of 2500 or more.

A word of caution is in order in interpreting cost figures for rural transit services. These costs usually are not comparable from one operation to another since different factors are likely to be included and dissimilar bases for calculation often are involved. Administrative costs may or may not be included. Driver's wages are omitted in some instances since drivers frequently are paid separately or may be volunteers working without pay. Therefore, the basis for determining rural transit costs will not permit direct comparison with figures given in Tables 6 and 7 for urban properties.

A strict interpretation of state laws would suggest that many of the rural services reported below should be certificated as intercity carriers of passengers. Since there is general recognition that these services perform a useful public function and do not usually compete with regular route carriers, there has been no particular complaint about the absence

of conformity with legal requirements. However, a change in the laws governing intercity carriage of passengers should be effected so that the legal status of rural transit operations will be clarified.

Summary of Existing Operations

As may be seen in Figure 4, there are 16 existing rural operations in Iowa. These operations vary not only from one to another but also from one county to another in multicounty operations. A summary of these existing operations follows.

I. State's Elderly Area X Transportation System (SEATS)

Operation date: January 1, 1974.

Area of service: Planning area X - Benton, Cedar, Iowa, Johnson, Jones, Linn, Washington Counties.

Contact: Mr. Richard Brass
SEATS Coordinator
Kirkwood Community College
6301 Kirkwood Blvd., S.W.
Cedar Rapids, Iowa 52406

Administrative structure: County sponsoring committees are coordinated through the Area Agency on Aging office at Kirkwood Community College.

Funding: Federal funds (75 percent) from the Older Americans Act, Title III. Local funds (25 percent) from memberships, fares, donations, and county boards of supervisors.

Costs: (Through December 1974) the average cost per mile for the seven counties of $0.25. Individual county costs per mile are as follows: Benton $0.23, Cedar $0.24, Iowa $0.21, Johnson $0.24, Jones $0.16, Linn $0.32, and Washington $0.29. Costs used to compute these averages include gas, oil, maintenance, driver's wages, and sponsoring agency administrative expenses but exclude administrative wages. Backup vehicle costs also are not included.

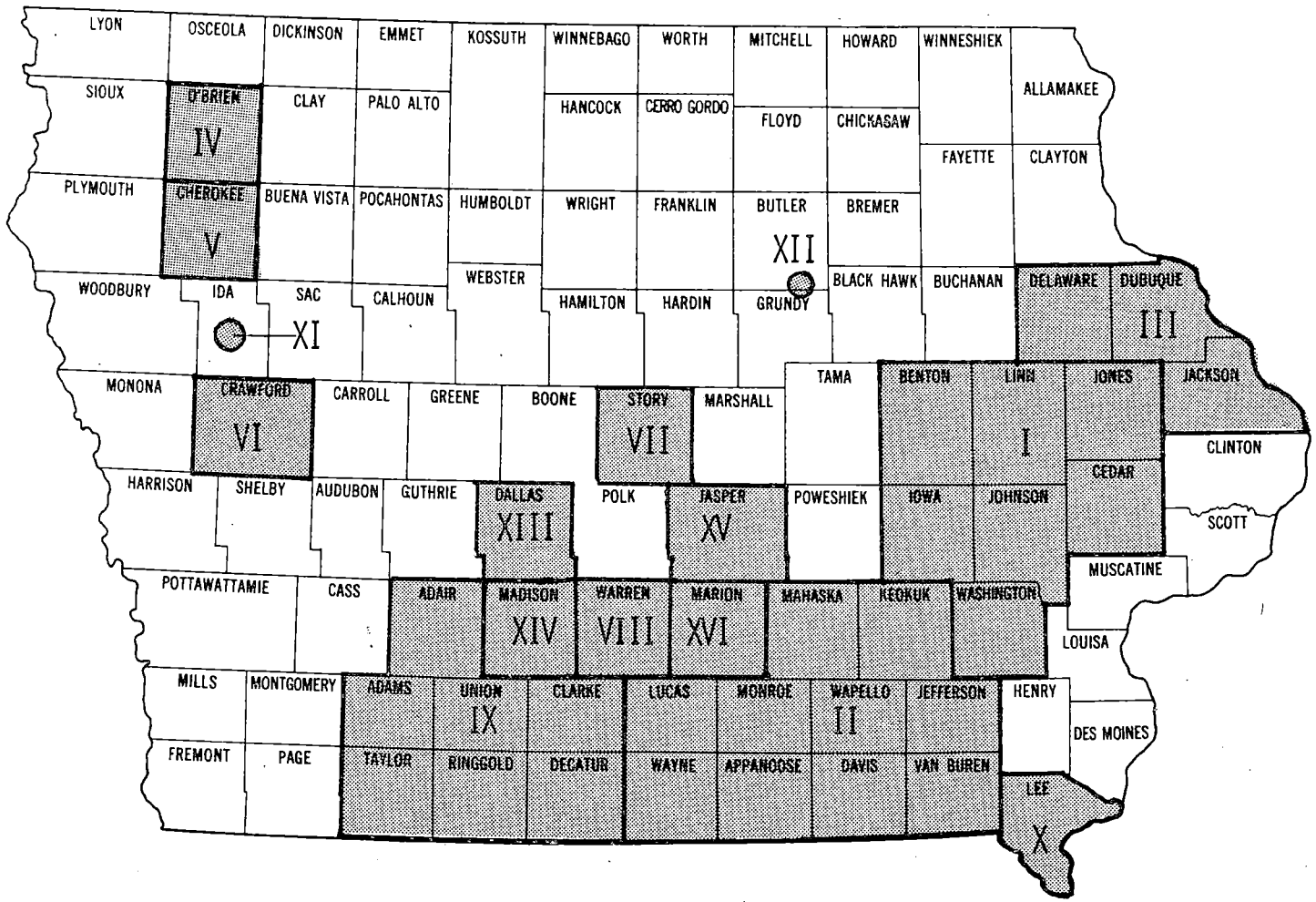


Figure 4. Location of rural transit services in Iowa (as of March, 1975). (See text for key.)

Routes and schedules: Schedules are developed by individual counties; generally three days every week are allowed for routes beginning and ending in the county seat and two days for all-county or out-of-county trips. Evenings, Saturdays, and Sundays are available for prearranged group excursions. Reservations are made 24 hours in advance by calling the central dispatcher toll-free, whereas group excursions are arranged 10 days in advance. All buses are dispatched by two-way radios through the central dispatcher at Kirkwood Community College.

Users: Anyone may use SEATS, but it is mainly for persons age 60 and over. Primary users are the elderly.

Fares: Membership (persons over 60, non-transferable, expire February 1, 1975) is $5.00. County trip one-way: $0.25 for elderly members, $0.50 for elderly non-members, $0.75 for general public, $0.50 for children occupying seats. Transfers between buses cost the same as a one-way trip. Charges are $0.25 per mile for trips between counties in Area X, and the same charge plus reimbursement for driver's wages is levied for excursion trips.

Vehicles: Fifteen-passenger, Dodge vans with air conditioning, AM radio, and two-way radio are used. Buses are titled to the State Commission on Aging, and both the Commission and SEATS carry liability insurance on the buses. One bus is in each county, except Linn and Johnson which have two buses each.

Drivers: Drivers are paid $2.50 per hour. They must attend courses on first-aid and defensive driving, take a physical examination, have no serious driving violations, have or be willing to obtain a

chauffeur's license, and have sensitivity to the feelings of elderly people.

II. Senior Transit System (STS)

Operation date: November 1973.

Area of service: Planning area XV - Appanoose, Davis, Jefferson, Keokuk, Lucas, Mahaska, Monroe, Van Buren, Wapello, Wayne Counties.

Contact: Pam Hunt
Transportation Coordinator
Indian Hills Community College
Ottumwa Industrial Airport
Ottumwa, Iowa 52501

Administrative structure: The area committee is advisory to county advisory committees. Both groups coordinate the needs and services, but most decisions are made by the local committees.

Funding: Ninety percent federal funds from Title III of the Older Americans Act. Ten percent local funds from donations.

Costs: (Based on third quarter, 1974). The average cost for the 10 county area was $0.47 per mile. Individual county cost per mile values are as follows: Appanoose $0.53, Davis $0.57, Jefferson $0.52, Keokuk $0.40, Lucas $0.45, Mahaska $0.40, Monroe $0.43, Van Buren $0.38, Wapello $0.56, and Wayne $0.43. Costs used to compute these averages include gas, oil, maintenance, salaries, rent, utilities, etc.

Routes and schedules: Routes and schedules are developed by individual counties. Generally, four days every week the bus will be in one quadrant of the county. The other day is either an all-county day or special-trip day. Excursions may be scheduled on week-ends. Reservations should be made 24 hours in advance by calling the county coordinator. Limited same-day service can be handled, especially

in cases of emergencies. Buses run 8:00 a.m. to 4:30 p.m. Monday through Friday, except holidays.

Users: Restricted to persons age 60 and over (55 or over plus needy and handicapped in Wayne County), but exceptions are made. Used primarily by the elderly in all areas and also by handicapped in some areas.

Fares: All fares are suggested donations. Amounts vary from $0.25 in town and $0.50 in county for one-way trips to $1.00 for round trip anywhere in county. A charge of $0.28 per mile can be made for out-of-county trips. Note, however, that each county operates independently, so fares vary among counties.

Vehicles: Twelve- or 15-passenger Dodge vans with air conditioning, AM radio, and a fold-down step are used. Some have a two-way radio or phone. Buses are titled to both the State Commission on Aging and Indian Hills Community College. Each county has one bus.

Drivers: Drivers are paid $4,095 annually, or this amount is divided among the drivers if more than one is hired. They attend a three day training course including defensive driving, first-aid, needs of the elderly, etc.

III. Dubuque Area

Operation date: Not available.

Area of service: Planning area VIII - Delaware, Dubuque, Jackson Counties.

Contact: Miss Marguerite Carter
Senior Citizen Liaison
Tri-County "Operation New View"
Box 1048
Dubuque, Iowa 52001

Administrative structure: A senior coordinator, from the Community Action Program - Operation New View, oversees the three county managers. These people are involved in other programs in addition to transportation.

Funding: Funds are local initiative funds from OEO.

Costs: Most costs are incurred in the form of reimbursement to persons furnishing rides at a rate of $0.10 per mile. This is less costly than using program cars.

Routes and schedules: There are five buses that have fixed routes. Each county system is different, depending on medical facilities. Cars are used to pick up persons who phone a day in advance.

Users: Service is primarily for senior citizens and transportation-poor families. Senior citizens are primary users.

Fares: Voluntary contribution of $0.50 or whatever the person can afford for the use of the car.

Vehicles: Each county has a station wagon with air conditioning and AM radio. Five old, used school buses are also used. As they fall apart, they are junked and not replaced because of high maintenance costs.

Drivers: Drivers are senior citizens with a chauffeur's license and are paid $2 per hour. Bus drivers need previous experience.

IV. O'Brien County

Operation date: December 1973.

Area of service: O'Brien County.

Contact: Mr. Peter Hart
Upper Des Moines Opportunity, Inc.
1907 Eleventh Street, Box 98
Emmetsburg, Iowa 50536

Administrative structure: Program is administered by the Upper Des

Moines Opportunity, Inc., the local arm of the Office of Economic Opportunity. There is also a county OEO coordinator.

Funding: County revenue sharing funds.

Costs: (December 1973 - June 1974). The cost per mile was $0.24. Costs include operational and staff costs. For the period of June - October 1974, costs remained about the same as the previous period.

Routes and schedules: Tuesday and Thursday of each week the bus runs a scheduled route to take people into Primghar, the county seat. The other three days of the week, the bus is used by the other five towns in the county on a rotational basis. The bus may be used for any purpose these towns may have, often for excursions to nearby towns in other counties.

Users: Any county resident may ride the bus. Primary users are senior citizens.

Fares: There is no fare charged. Donations are taken for out-of-county trips. These donations have ranged from $8 to $15.

Vehicles: The county leases a 1974 Dodge van with AM radio that carries 14 passengers.

Drivers: One full-time driver was hired at a salary range of $4,742 to $6,011. Should have first-aid training or experience and have a desire to help people. No other special training is required.

V. Cherokee County Senior Citizen Minibus, Inc.

Operation date: November 1974.

Area of service: Cherokee County.

Contact: Lester Whiting
338 Fountain
Cherokee, Iowa 51012

Administrative structure: The program is operated by a board of directors elected for one year. Each town in the county is represented by one director, except that Cherokee has three directors.

Funding: The majority of funds are from the county supervisors. Local donations, memberships, and fares provide a small amount of funding.

Cost: For the first three months of operation, the average cost per mile was $0.43. Costs used to compute this average include gas, oil, and driver's salary.

Routes and schedules: An agent in each of the outlying towns collects needed passenger information and calls this information into Cherokee the day before the bus is scheduled to visit his area. Persons in Cherokee may call for same-day service. The bus priority is for Marcus, Cleghorn, and Meriden on Monday, Washta and Quimby on Tuesday, Larrabee and Aurelia on Friday, and Cherokee on Wednesday and Thursday. The bus is also used in Cherokee on any day that there is no call for out-of-town trips.

Users: Primarily for persons 55 years old or over and handicapped, but anyone may use the system.

Fares: Memberships in the corporation cost $2 per year. Fares for members are $0.50 round trip in the town of Cherokee and $1 round trip plus one free town shuttle pass from anywhere in the county to Cherokee. Non-members pay $1 round trip in town and $2 round trip plus one free town shuttle pass from anywhere in the county to Cherokee.

Vehicles: A 1973, 10-passenger Chevrolet van with AM radio and air conditioning is used. The corporation's name appears on the title to the bus.

Drivers: The drivers are paid $2.10 per hour as of January 1975 and have no special training or requirements.

VI. Crawford County

Operation date: December 1974.

Area of service: Crawford County.

Contact: Mrs. Bernice Grage
West Central Development Corporation
Box 211
Denison, Iowa 51442

Administrative structure: The operation is coordinated by the West Central Development Corporation.

Funding: The funds were received as a grant from the State Commission on Aging under the Older Americans Act, Title III (75 percent). Local matching share (25 percent) consists of donations and use of space.

Costs: None available.

Routes and schedules: Persons wishing to ride the bus must call 24 hours in advance to make reservations. The bus covers a corner of the county each day of the week.

Users: Users are restricted to those 60 years of age and older or handicapped persons.

Fares: One dollar for a round trip.

Vehicles: A 12-passenger, Ford van with air conditioning and AM radio is used.

Drivers: Drivers are paid $2.10 per hour and work five hours per day, five days a week. No special requirements.

VII. Story County

Operation date: March 1972.

Contact: Story County Community Action Agency
217 Sixth Street
Ames, Iowa 50010

Administrative structure: The service is operated by Story County Community Action Agency.

Funding: OEO money and donations make up the funds.

Costs: Not available.

Routes and schedules: The bus runs on a fixed, circuitous route two days a week. Tuesdays the bus travels the southern part of the county, and on Thursdays it travels the northern part of the county. The afternoon route is the reverse of the morning route. Two cars are also available on an advance reservation basis. The bus is also available for non-profit organizations to use on days other than Tuesday and Thursday.

Users: The bus is for use by any county resident. Cars are primarily used to transport Outreach persons.

Fares: No fares, but donations will be accepted. The bus may be chartered for $0.20 per mile plus driver's wages or riders may supply their own driver. No fares are charged for cars, but donations will be accepted.

Vehicles: One old, 20-passenger army bus and two cars. The cars are 1965 Ford station wagons without air conditioning or radio.

Drivers: Drivers are paid $2.50 per hour. No special qualifications are required.

VIII. Warren County

Operation date: December 1974.

Area of service: Warren County.

Contact: Warren County Community Action Center
109 East Salem
Indianola, Iowa 50125

Administrative structure: Administered by the County Community Action Center.

Funding: OEO funds through the Community Action Center.

Costs: Not available.

Routes and schedules: The bus services one of five different areas each weekday. The five service areas are as follows: northeast, northwest, southeast, southwest quadrants and the City of Indianola. Reservations must be made 24 hours in advance.

Users: Service is for senior citizens.

Fares: Fares are suggested contributions. A one-way fare of $0.45 is charged for trips within one area. A one-way fare of $0.50 is charged for trips between or out of the areas.

Vehicles: A 15-passenger Dodge van with air conditioning and AM radio is used.

Drivers: The driver is paid about $2.25 per hour. He had training in first-aid and defensive driving.

IX. Southern Iowa Trolley (SIT)

Operation date: September 1974.

Area of service: Planning area XIV - Adair, Adams, Clarke, Decatur, Ringgold, Taylor, Union Counties.

Contact: Lois Houston
Southern Iowa Council of Governments
215 North Elm Street
Creston, Iowa 50801

Administrative structure: The overall operation is coordinated by a staff committee consisting of the coordinator, the Area XIV Agency on Aging director and the administrative person from Sheltered Workshop. All administrative details are performed by the Sheltered Workshop. The staff committee reports to the policy and advisory board, which consists of persons from Area XIV Agency on Aging and Sheltered Workshop, a program for the handicapped.

Funding: Funds were received under Title III of the Older Americans Act (90 percent) and from the county supervisors (10 percent).

Costs: Not available.

Routes and schedules: The routes and schedules vary for each county. Most towns in the seven county area have service at least once a week. Several counties provide times for trips to places outside Area XIV, i.e., Des Moines.

Users: The system is primarily for persons 60 years or older or handicapped persons, but anyone may ride.

Fares: Fares are suggested contributions for the elderly and handicapped, $0.25 is charged for in town service, $0.50 for a round trip within the county and $1.00 for trips outside the county but within Area XIV. The general public is charged double the fare for the elderly and handicapped. Fares for trips to places outside Area XIV are charged on a cost basis. These fares apply to Adair, Ringgold, Taylor, and Union Counties. Service in Clarke County and Adams County is free. Decatur County charges a suggested donation of $0.25 and is available only to

meal program participants.

Vehicles: A variety of vehicles is used. Three, 12-passenger Ford vans with AM radio and air conditioning are used in Adair, Ringgold, Taylor and Union Counties. Clarke County uses a 15-passenger van provided by the Central Iowa Community Action Program. Adams County uses a 48-passenger school bus which is contracted through MATURA. Decatur County has a contractual taxi service.

Drivers: Drivers are paid $2.50 per hour. Each driver is required to attend a two-day training session to learn first aid, defensive driving, etc. A chauffeur's license is also required. This applies only to Adair Ringgold, Taylor and Union Counties.

X. Lee Transportation System (LETS)

Operation date: February 1975.

Area of service: Lee County.

Contact: Phyllis White
111½ Valley Street
Burlington, Iowa 52601

Administrative structure: The program is operated through the local Community Action Agency.

Funding: Funds for the purchase of the bus came from OEO. Operating costs are covered by memberships, fares and agency funds.

Costs: Not available.

Routes and schedules: The northern part of the county is serviced on Monday and Wednesday. On Tuesday and Thursday, the central part of the county is serviced. On Friday, service starts at Fort Madison and travels through Montrose to Keokuk, where service is provided during the remainder

of the day. Reservations are made the previous day.

Users: Priority is given to the elderly or handicapped, but anyone may ride the bus.

Fares: A membership may be bought by the elderly or handicapped for $5.00. A one-way fare with membership costs $0.25 or $0.75 without a membership. Children occupying a seat are charged $0.50 and the general public $0.75 for a one-way trip.

Vehicles: A 15-passenger Dodge van with air conditioning and AM radio is used.

Drivers: Drivers are paid $2.10 per hour and have no special requirements.

XI. Ida County

Operation date: September 1973.

Area of service: The town of Ida Grove and nearby area.

Contact: Theo Murphy
American Association of Retired People (AARP)
City Hall
Ida Grove, Iowa 52445

Administrative structure: The service is under the control of a three-member citizen committee.

Funding: Funds are made up of fares and donations.

Costs: Costs are paid for out of the fares and donations. Any deficit is made up by the city. The car is kept in the city garage and the only major expenses are for gas and oil.

Routes and schedules: The service is available through reservations made 24 hours in advance. The service operates basically Monday through Friday but also operates occasionally on Saturday mornings.

Users: Service is provided for senior citizens.

Fares: The fare is a suggested donation of $0.50 for a one-way trip.

Vehicles: A 1965 Mercury Monterey with air conditioning and AM radio was donated to the city. The car is in the city's name for insurance purposes and other benefits.

Drivers: Different organizations in the community supply volunteer drivers each day. There are no special qualifications.

XII. Butler County

Operation date: January 1974.

Area of service: The town of New Hartford.

Contact: Mrs. Jackie Venenga
Rt. 1
New Hartford, Iowa 50660

Administrative structure: The person listed above is in charge of the program and provides coordination.

Funding: Local funds from the New Hartford Jaycees are used.

Costs: Ten cents per mile is paid to the drivers to cover operating costs.

Routes and schedules: It is a demand-responsive system for elderly people in New Hartford who want to go to Cedar Falls or Waterloo.

Users: Designed for the elderly, although not extensively used.

Fares: None.

Vehicles: Private passenger cars.

Drivers: Jaycee wives volunteer to drive their own cars and are reimbursed for mileage.

XIII. Dallas County

Operation date: December 1974.

Area of service: Dallas County.

Contact: Information & Referral Center
115 South 10th
Adel, Iowa 50003

Administrative structure: Administered by the Dallas County Homemaker-Health Aide Service.

Funding: Ninety percent Title III, Older Americans Act funds and 10 percent local matching funds provided by the Dallas County Board of Supervisors.

Routes and schedules: The bus services five different areas each weekday. The five service areas are the northwest, the northeast, the southeast, and the southwest quadrants of the county and the City of Perry.

Users: Service is for senior citizens.

Fares: Fares are suggested contributions. A one-way fare of $0.25 is suggested for service within a quadrant. A one-way fare of $0.50 is suggested for trips between or out of the areas.

Vehicle: A 12-passenger Ford van with air conditioning and AM radio is used.

Driver: The driver is paid $2.10 per hour, is trained in first-aid and defensive driving, and has a chauffeur's license.

XIV. Madison County

Operation date: December 1974.

Area of service: Madison County.

Contact: Multi-Purpose Center
114 N. 2nd Street
Winterset, Iowa 50273

Administrative structure: Administered by the Multi-Purpose Center.

Funding: Multiple funding; partial "Purchase of Service" Title VI of the Social Security Act funds with 25 percent local matching funds provided by the Madison County Board of Supervisors and partial 90 percent Title III Older Americans Act funds with 10 percent local matching funds provided by the Madison County Board of Supervisors

Routes and schedules: The bus serves one of five different areas each weekday. The service areas are as follows: northeast, northwest, southeast, and southwest quadrants of the county and the city of Winterset. Additional trips are scheduled to serve handicapped persons two days each week.

Users: Service is for senior citizens and blind or handicapped persons.

Fares: Fares are suggested contributions. A one-way contribution of $0.25 is suggested for service within an area. A $0.50 contribution is suggested for trips between or out of areas.

Vehicles: A 12-passenger Ford van with air conditioning and AM radio is used.

Drivers: Drivers are trained in first-aid and defensive driving. They are paid $2.10 per hour and have chauffeur's licenses.

XV. Jasper County

Operation date: December 1974.

Area of service: Jasper County.

Contact: Jasper County Opportunity Center
Jewell Building
Newton, Iowa 50208

Administrative structure: Administered by the Jasper County Opportunity Center.

Funding: Ninety percent Title III Older Americans Act funds and 10 percent local matching funds provided by the Jasper County Board of Supervisors.

Routes and schedules: The bus serves one of five different areas each weekday as follows: northwest, southwest, northeast, and the southeast quadrants of the county and Newton.

Users: Service is for senior citizens.

Fares: Fares are suggested contributions. A one-way fare of $0.25 is suggested for trips within an area and a $0.50 contribution is suggested for trips between or out of areas.

Vehicles: A 15-passenger Dodge van with air conditioning and AM radio is used.

Drivers: The driver is trained in first-aid and defensive driving, is paid $2.10 per hour, and has a chauffeur's license.

XVI. Marion County

Operation date: December 1974.

Area of service: Marion County.

Contact: Community Action Center
114 E. Robinson
Knoxville, Iowa 50318

Administrative structure: Administered by the County Community Action Center.

Funding: Ninety percent Title III Older Americans Act funds and 10 percent local matching funds provided by the Marion County Board of Supervisors.

Routes and schedules: The bus services five different areas each weekday as follows: the northwest, southwest, northeast, southeast quadrants of the county and Knoxville.

Users: Service is for senior citizens.

Fares: Fares are suggested contributions. A one-way contribution of $0.25 is suggested for service within an area. A one-way contribution of $0.50 is suggested for service between or out of the areas.

Vehicles: A 15-passenger Dodge van with air conditioning and AM radio is used.

Drivers: The driver is paid $2.10 per hour and is trained in first-aid and defensive driving and has a chauffeur's license.

Possible Future Rural Services

As indicated in Figure 5, there are nine towns or areas that are in some stage of planning for the provision of rural public services. In some cases, equipment is being procured. In other instances, grant applications are pending or are in some stage of preparation. The key to the proposed services shown in Figure 5 is as follows:

I. Area IV - Cherokee, Ida, Monona, Plymouth, Woodbury Counties

II. Area V - Calhoun, Hamilton, Humboldt, Pocahontas, Webster, Wright Counties

III. Area VI - Hardin, Marshall, Poweshiek, Tama Counties

IV. Area XI - Boone, Dallas, Jasper, Madison, Marion, Polk, Story, Warren Counties

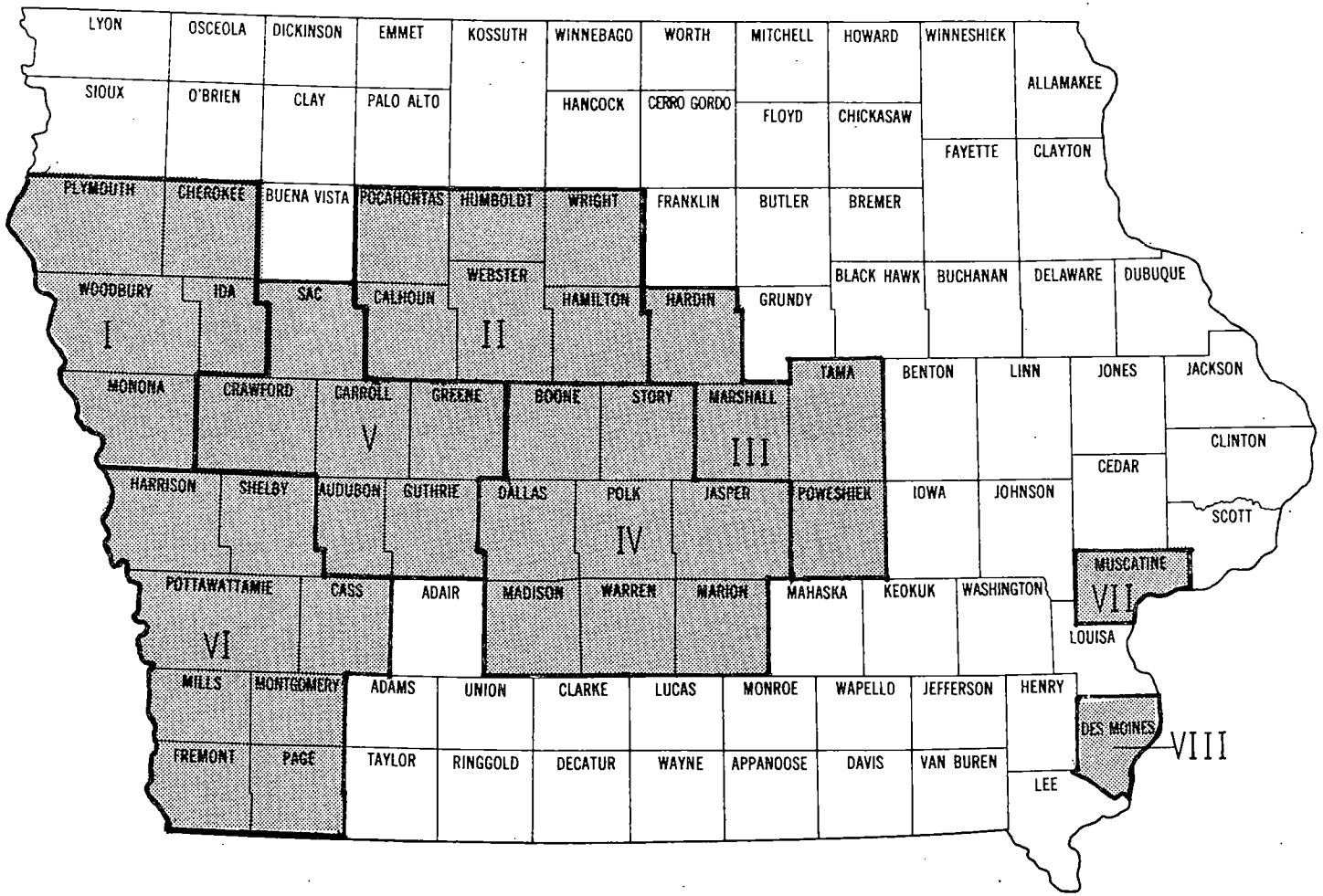


Figure 5. Location of areas planning rural transit services in Iowa (as of March 1975). (See text for key.)

V. Area XII - Audubon, Carroll, Crawford, Greene, Guthrie, Sac Counties

VI. Area XIII - Cass, Fremont, Harrison, Mills, Montgomery, Page, Pottawattamie, Shelby Counties

VII. Muscatine County

VIII. Des Moines County

It may be noted that some of the existing services would be superseded or absorbed by the proposed services listed above, if these are implemented.

Taxicab Operations

As part of this study, contact was made with each taxicab operation based in Iowa that could be identified. Information was obtained from most companies concerning their fare structure, hours of service, and other data.

Virtually all companies that were surveyed are prepared to provide intercity service as well as service within their home community. Minimum local fares varied generally between $0.60 and $1.25. Taxi service in some smaller cities was available only 12 hours per day whereas 24-hour service is provided in most larger cities. Most taxis in Iowa are radio dispatched. The specific operations contacted and the number of cabs operated in April 1975 is shown in Table 19.

Table 19. Summary of taxicab operators in Iowa.

City	Company name	Number of cabs
Algona	Algona Cab Co.	1
Ames	Ames Taxi Co.	5
Atlantic	Barringer Taxi	2
Boone	Yellow Cab Co.	8
Burlington	American Cab Co./Checker and Yellow Cab Co.	10
Carroll	Carroll Cab Co.	3
Cedar Falls	Mike's Yellow Cab	Not Reported
Cedar Rapids	A-1 Taxi	6
Cedar Rapids	Ace Cab Co.	2
Cedar Rapids	Cedar Rapids City and Yellow Cab, Inc.	25
Cedar Rapids	Century Cab	20
Centerville	Sacco's Cab Co.	2
Chariton	Carter Cab Service	2
Chariton	Guthrie-James Taxi	1
Charles City	C & D Cab Service	3
Clear Lake	Lake Cab, Inc.	3 plus 1 Limousine
Clinton	Yellow & Checker Cab Co.	3
Corning	Corning Cab	3
Council Bluffs	Yellow Cab Co.	10
Creston	City Cab	2
Creston	Creston Cab Co.	3
Davenport	Royal Cab	15

Table 19. Cont.

City	Company name	Number of cabs
Davenport	Yell-o Cab	7
Decorah	Decorah Cab Service	3
Denison	A & E Taxi	1
Denison	B & W Taxi and Denison Cab Co.	1 per company
Des Moines	Ruan Cab	Over 50
Des Moines	Yellow Cab	Not Reported
Dubuque	A - OK Yellow Cab	14-20
Estherville	Safeway Cab	1
Fairfield	Happy Day Taxi	2
Forest City	Forest City Taxi Service	1
Ft. Dodge	Union Cab Co., Inc.	11-14
Ft. Madison	Ernie's Taxi	3
Ft. Madison	Ft. Madison Cab Co.	4
Ft. Madison	Jerry's Red Cab	3
Grinnell	Courtesy Cab Co.	3
Harlan	Harlan Taxi	1
Independence	City Taxi Co.	1
Indianola	Indianola	1
Iowa City	Super Cab, Inc.	10
Iowa City	Yellow Checker Cab Co., Inc.	12
Iowa Falls	Taxi Scenic City	3
Keokuk	Checker Cab Co.	3
Keokuk	Yellow Cab Co.	3

Table 19. Cont.

City	Company name	Number of cabs
Knoxville	Knoxville Cab Co.	3
LeMars	Dreckman Taxi	1
Leon	Leon Cab Co.	2 plus 1 mini bus
Maquoketa	Veterans Radio Cab	2
Marion	Art's Taxi Service	1
Marshalltown	Royal Cab Co.	5
Marshalltown	Yellow Cab Co.	3
Mason City	Black & White Cab Co./Red Top Cab Co./Yellow Cab Co.	6
Mt. Pleasant	City Cab	2
Muscatine	Port City Yellow Taxi	7
Newton	Newton Cab	7
Newton	Yellow Cab Co.	5
Oelwein	Nu Cab System	2
Osceola	Mark's Cab	2
Osceola	Osceola Cab Co.	2
Oskaloosa	Gabel's Cab	2
Oskaloosa	Oskaloosa Cab Co.	2
Ottumwa	City Cab Inc./Yellow Cab	5
Perry	Perry Cab Co.	6
Red Oak	Courtesy Cab Co.	3
Sac City	Kelch Taxi Service	2
Shenandoah	Jim's Yellow Cab	3

Table 19. Cont.

City	Company name	Number of cabs
Sioux City	Checker & Yellow Cabs	30-35
Sioux City	Radio Cab	14
Spencer	Spencer Cab Co.	3
Storm Lake	Vista Cab	2
Tama	GI Cab Co.	1
Vinton	Vinton Cab	1
Washington	City Cab	1
Waterloo	Waterloo Yellow Cab Co.	16
Webster City	City Cab	2
Winterset	City Cab	1

Other Special Services

In addition to the regular route urban services, intercity passenger carriers, taxicab operators, and the several rural services described previously, a number of other transit or para-transit services are being provided in Iowa. The number of such services is likely to increase rapidly with an increased awareness of the necessity of providing mobility to the aged, the handicapped, and to others who are otherwise deprived of a satisfactory level of mobility. A proliferation of funding sources

available for such special services is also conducive to their expansion.

Not included in this study are services provided by school buses outside of their primary purpose of transporting pupils to and from school and for school events. Other uses of school buses are permitted by a change in state law enacted in 1973. Chapter 285.10 of the Code of Iowa as amended by Chapter 197, 65th General Assembly, 1973 session, permit use of school buses for "an organization of, or sponsoring activities for, senior citizens, children, or handicapped persons in this state." Costs of providing such transportation are to be reimbursed to the School District furnishing buses. According to officials of the Department of Public Instruction, little use is being made of this provision of the law since school buses are not generally suitable for transportation of elderly or handicapped persons. Furthermore, conflicts in scheduling other activities outside the periods of demand for school buses for pupil transportation are inhibitory to most other uses of the buses.

The other special services that have been identified as part of this study are described below. This listing is not exhaustive, as other similar operations are believed to exist, but is representative of the types of special services that can be used to supplement more conventional transit operations.

Coralville Transit System

The Coralville Transit System is operated by the City of Coralville to provide local service within Coralville and connecting service to Iowa City. It also provides a form of interurban service to the Oakdale Campus of the University of Iowa and formerly served North Liberty. Fares have recently been raised to $0.35 (from $0.25) for service locally and to Iowa City. Coralville Transit operates three routes on weekdays, each of which connects with Iowa City, and one route at night and on Saturday.

Financial support is provided primarily from a property tax levy and from revenue-sharing funds. Additional funds are provided from the University of Iowa ($8,000 annually). Funds from the City of Coralville to subsidize this service amounted to $33,000 in 1973 and about $55,000 in 1974. The ratio of revenue to expense for this property was 0.48 in 1974.

Patronage of the Coralville Transit System has been quite high for an operation of this nature. The property served 134,836 passengers in 1973 and 179,434 passengers in 1974. Although the number of buses reported by the system includes some that are inoperative, it has nine buses ranging in age up to 25 years.

Cambus

Cambus is a special service providing buses within the University of Iowa campus in Iowa City with connections to fringe parking lots and to a married student housing complex. Three separate routes

have been established, and service is provided in both directions on the principal internal route. Headways are about six to seven minutes on the principal internal route during most of the day, 10 minutes on a dormitory express route, and 24 minutes on the route to the housing complex.

This service is operated by the University of Iowa. Most of the employees of Cambus are students. No fare is charged. Funds for financial support are derived from parking fees (30 percent), student activity fees (35 percent), and federal work-study funds (30 percent) which are used for a portion of employee wages. The total cost for this operation for the current fiscal year is reported as $285,000.

Over two million rides are provided annually, based on an estimate of 14,000 passengers daily during the academic year. Cambus owns 18 buses, eight and 18 years old.

Senior Citizen Dial-a-Ride, Cedar Rapids

This special service is provided by the Regional Transit Company in Cedar Rapids to serve elderly patrons (identified by a special card) and handicapped persons (who are recommended by a physician). Service is provided by two 31-passenger buses reserved for this purpose at a $0.20 fare. Pickup is arranged by a phone call placed the day before service is desired and is door-to-door from origin to destination. It is estimated that 65 to 70 persons are provided with this service each weekday. Revenue-sharing funds

have been used to provide financial support for this service.

Royal Cab Shared-Ride Taxi System, Davenport

The shared-ride service provided by Royal Cab in Davenport is perhaps the best example in Iowa of the jitney type of service that is being advocated by many transportation experts as a necessary supplement to fixed-route service in urban areas. Taxis utilized in this demand-responsive service carry up to five passengers and provide door-to-door service. Average fares are about $1.00, which is significantly less than the fare charged for conventional taxi service. A study made in 1973 (13) found that this service provided over 1300 daily rides, or possibly 400,000 annual rides. The system is privately operated and provides a profit to the operator.

Ames - Iowa State University Subscription Service

The City of Ames sponsors a subscription service to provide bus service from a residential area in Ames to the Iowa State University campus. One or two buses, depending upon demand, provide one round trip daily to patrons of this service during the University's academic year. The monthly charge is $10 for adults and $8 for students. Buses are leased on an hourly basis from Midwest Transportation, Inc. This service is operated with the expectation that operating revenues will equal operating costs.

Iowa State University Service

Transit service is provided within the Iowa State University campus

in Ames with connections to an outlying dormitory complex and to a married student housing complex. This service utilizes a total of seven buses leased on an hourly basis from Midwest Transportation, Inc., during the months of December through March. Financial support is provided through student subscriptions and farebox revenues. A total of 1650 passes were sold during the current season. Farebox revenues are negligible amounting to something less than $200 per season. Holders of passes for this system may also ride the fixed-route system of three routes in Ames. The system is self-supporting.

Dubuque Cable Cars

Although primarily a tourist attraction, the 4th Street Elevator in Dubuque also performs a public transportation service for residents of the area. The cable cars climb 286 feet in ascending a steep hill in a residential neighborhood. A fare of $0.10 per trip supports this private operation which has served Dubuque since 1882.

Ride for the Elderly, Davenport

Two vans and one passenger car utilizing paid drivers provide transportation to persons aged 60 or over and to handicapped persons in Davenport and Scott County. This service is supported by several sources, including federal and state programs, Scott County, and the United Way, and is operated by the local Community Action Program. Regular service on weekdays is provided within Davenport from 8:30 to 10:30 a.m. and 3:30 to 5:30 p.m. Service to each outlying town in

Scott County is provided twice weekly during the mid-day period. Weekend service is available only for delivery of meals to elderly persons. No fares are charged, but a donation of $0.15 is suggested for service within Davenport and $0.25 for rural service.

Northeast Iowa Council on Aging Transportation Program, Waterloo

Private donations and a multiplicity of local and federal funding sources support this transportation service provided for elderly persons in Black Hawk County, centered on Waterloo. Three vans and one station wagon are operated by paid drivers to provide demand-responsive service each weekday. No fares are charged.

Transportation Corporation for Elderly, Marshalltown

The Area VI Agency on Aging and the Community Organized for Outreach Programs and Education (COPE) jointly sponsor this program to provide transportation for elderly or handicapped persons. Service is afforded daily, including Sundays, throughout Marshall County by volunteer drivers who use their own cars. Drivers are paid $0.15 per mile for trips outside of Marshalltown. Service is provided free, although voluntary donations are accepted, in response to telephone requests.

Systems Unlimited, Iowa City

Transportation is provided as part of the adult services aspect of the programs of Systems Unlimited in Iowa City. Four vans (one equipped with a hydraulic lift) using paid drivers provide demand-responsive service to eligible clients. Title IV-A of the Social

Security Act provides the principal source of funding and establishes client eligibility criteria. Local matching funds are derived primarily from the adult population served.

Senior Citizen Ongoing Transportation System (SCOTS), Decorah

This program is administered by the Cross Line Council, an organization of church-related groups in Decorah. One van serves clients who are 60 years of age or older and are members of Retired Seniors Volunteer Program (RSVP). Drivers are volunteer members of the RSVP program or are from the Council office staff and are not separately reimbursed for driving. Financial support is derived primarily from RSVP program funds. Service is provided without charge on weekdays within Decorah and Winneshiek County.

Dubuque Area Project Concern for Elderly and Retired, Inc.

Two cars and one station wagon are providing service to elderly clients within Dubuque under this program. Funding is derived from Title III of the Older Americans Act with matching funds provided by the city, Dubuque county, and the United Way. Drivers are hired to provide this service for which donations are accepted but no fares are charged.

Skyline Center, Inc., Clinton

Federal and state funds are used to support this service, which operates two buses, one of which is equipped with a hydraulic lift. Buses serve clients throughout Clinton County in providing transportation to and from the Skyline Center, an educational center for adult handicapped and elderly persons.

Iowa Soldiers Home, Marshalltown

The Soldiers Home provides a variety of transportation services for employees and clients. Equipment is operated by professional drivers and includes 13 vans specially equipped for handicapped patients, eight station wagons, and one ambulance.

Transportation Program for Iowa Methodist Medical Center, Des Moines

One large bus and one minibus, both equipped to handle patients in wheelchairs, provide service upon demand for outpatients at the Younkers Rehabilitation Center. Professional drivers are available eight hours per day with service at other times provided by staff members of the hospital's recreation department. A fare of $1.00 is charged those passengers who are able to pay.

Orange City Dial-a-Ride

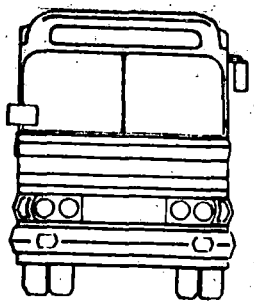
This service, initiated April 7, 1975, is sponsored by the city to provide free transportation to residents of Orange City who are 65 years of age or older. A city-owned station wagon driven by a city employee is used.

Others Serving Special Clientele

Some of the other services identified during the course of this study provide transportation for exceptional children to and from a particular facility. These include the following:

- University Hospital School, Iowa City; two leased vans, one equipped with hydraulic lift, two buses, and two station wagons; financial support from the Joint County School System.

- School Agency Transportation System, Waterloo; 12 buses, two equipped with hydraulic lifts; financial support from city, Black Hawk County, and Area VII through Exceptional Person, Inc.
- Worth County Development Center, Kensett; one van; financial support through programs administered by the Worth County Association for Retarded Children.
- Peter Pan Center, Burt; one van equipped with hydraulic lift and one station wagon; support by parental donations and Kossuth County through Exceptional Opportunities, Inc.



RECOMMENDED TRANSIT POLICY

In the United States, policy properly is established by elected officials of federal, state, and local governments. For example, the Congress and state legislative bodies formulate policy decisions through the enactment of laws and the appropriation of funds for their implementation. Further policy decisions are delegated to boards, commissions, or high-level officials of the executive departments charged with responsibility for implementing decisions of the legislative branch.

Policy is concerned not only with what should be done but also is clearly a function of what can be done. Therefore, the appropriations process must be viewed as the key step in establishing policy. The capability to perform most responsibilities is dependent upon the adequacy of fiscal resources. Thus, although recommendations for policy contained herein are based upon goals and objectives which have been assumed from the relevant legislation, they are also based upon levels of funding for transit assistance programs which are desirable, but may not materialize.

Policy recommendations included here are consistent with a presumed statewide goal to foster and encourage the use of transit so as to provide a reasonably suitable level of mobility to those persons who are unable to travel by automobile due either to economic reasons or physical limitations. It is further assumed that objectives of the state relative to transit would include a desire to improve services so as to provide an alternative to automobile travel.

Policy Statements

Consistent with the above goal and objective, it is recommended that the Public Transit Division of the DOT should serve as a centralized source of transit data and of expertise available to assist urban and rural transit operators. Several instances were encountered during the course of this study where local transit problems seemed to overwhelm and frustrate local officials. Yet, these problems were identical to those that had been encountered and overcome in other communities. The lack of a centralized information source or of an agency able to render technical assistance compounds the many problems faced by local officials responsible for transit programs. It is imperative, therefore, that the Public Transit Division should include persons competent to provide assistance regarding grant applications, technical studies, equipment, operations, and management for local transit properties.

Of equal importance, the Public Transit Division should serve as an advocate for transit within the DOT. The term "advocacy" was often expressed to study personnel by transit officials in other states to

describe one part of their perceived responsibilities. If the state's transportation goals include support of transit, it is essential that the DOT develop and actively pursue a transit information program. Such a program should be designed to keep the public advised of technical developments in transit and of state programs for transit improvements. It should also include frequent presentations to the public of information concerning the costs, benefits, and conveniences afforded by increased transit use.

Implementation of minimally acceptable programs for transit assistance require that Iowa should be in a position to utilize all available federal aid for transit purposes that will be of long-range benefit to the state and its political subdivisions by assuring the sufficiency of matching funds. Such a policy implies a substantial level of state financing input from local sources. It also suggests an aggressive program of evaluating local and statewide transit needs and assessing the implications of research and development programs for application in Iowa.

The state, through the DOT and its Public Transit Division, should carry out a program to assure the continuance of urban transit services in those communities now having service at levels which are at least equal to those now existing. Adoption of this policy does not necessarily suggest satisfaction with current fares or levels of service. Indeed, state policy should be directed toward the improvement of most existing urban transit services. However, the level of state funding for transit should, as a minimum, be sufficient to preclude further deterioration in urban transit services, providing that a suitable local effort to continue and improve these services is forthcoming.

The state should also play a leadership role in terms of grant application assistance, technical assistance, and financial aid to encourage the establishment of new transit services where none now exist in communities having populations in excess of 20,000. Although federal funds are available for most of the fiscal needs for planning and implementing new transit services, the planning capability and knowledge of grant application procedures is often limited in smaller communities. Fiscal resources required for the local matching portion may also present a difficult problem at the local level. The technical expertise of the Public Transit Division should be of substantial assistance to local communities in this respect, and state funds should be available to assist in implementing such services.

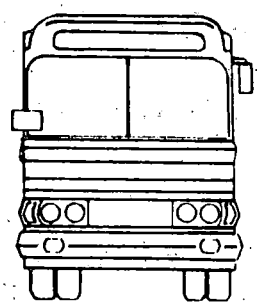
Similarly, the technical expertise of the Public Transit Division should be utilized to investigate the feasibility of innovative transit services in communities having populations of 10,000 to 20,000 by sponsorship of transit demonstrations in some number of such cities. As demonstration projects, it is appropriate that federal and state funds should partially defray the costs of these projects during their initial phases. In general, it is urged that the DOT encourage or undertake a variety of research, development, or demonstration projects which show significant promise for statewide application.

The state should also assist in the development of rural transit systems to improve the mobility of rural residents and should give special attention to improving the mobility of the elderly, the handicapped, and the economically disadvantaged in both urban and rural areas. In

a manner similar to the policy statements made previously, this requires leadership on the part of the DOT in research and development, grant application assistance, and the provision of technical help. Although federal programs are available to support many of the services that would be initiated or conducted under this policy, it also suggests a careful assessment of the appropriate state role in financing such services.

Information Sources

Principal input for the above policy recommendations has been afforded by the experience of other states that are operating in a manner similar to that suggested by the legislative intent set forth in the Iowa law creating the DOT. Actual policy statements from other states are uncommon. However, policy may be implied from various sources, most often from formal statements of goals and objectives. Particularly useful in this context is material that has been made available by California, Florida, New York, Ohio, Oregon, Tennessee, and Wisconsin.



SOURCES OF REVENUE

A suitable transit program has been presumed to include some provisions for financial assistance for local transit operations. Sources of revenue for such financial assistance are diverse but can be broken into three general categories: federal, state, and local. The purpose of this chapter is to examine these three categories of assistance and to make recommendations regarding possible sources of revenue for financial assistance to local transit in Iowa.

Federal Financial Assistance

The role of the federal government in the development of local transit services has become extremely important. Federal funds now represent a principal potential source of revenue for financing capital improvements and operating losses.

Financing Urban Transit

The Urban Mass Transit Act of 1964 stated the following purposes:

- To assist in the development of improved mass transportation facilities, equipment, techniques, and methods.

- To encourage the planning and establishment of areawide urban mass transportation systems needed for economical and desirable urban development.
- To provide assistance to state and local governments and their instrumentalities in financing such systems.

Provisions of this Act were to be implemented with the cooperation of mass transportation companies, both private and public, and systems operated by them as determined by local needs.

The original Act placed special emphasis on the need to provide financial assistance for capital improvements. In 1974, Amendments to the Act added substantial funds which may be used as grants for payment of operating subsidies. A brief summary of portions of the Act which apply to the financing of urban transit follows.

Section 3 provides financial assistance in the form of grants or loans in financing

1. The acquisition, construction, reconstruction, and improvement of facilities for use, by operation, or lease or otherwise, in mass transportation service in urban areas and in coordinating such service with highway and other transportation in such areas.
2. The establishment and organization of public or quasi-public corridor development corporations or entities.

The main feature of this section is the capital grant program. Section 4 provides for a federal grant of 80 percent of the portion of the cost of a project to be assisted under Section 3. The remainder is to be provided in cash from sources other than federal funds.

Section 5 permits use of federal funds for operating assistance for local transit operations. Eligibility is limited to transit systems operating in urbanized areas. Federal funds may support up to 50 percent of the total operating deficit, which support is to be matched from any one or more of several specified local or state funding sources. Distribution is made in accordance with a formula under which one-half is proportional to urbanized area population and one-half proportional to population weighted by a factor of density. Iowa is eligible to receive $11.07 million allocated to three urbanized areas having over 200,000 population (Des Moines, Council Bluffs as part of the Omaha metropolitan area, and Davenport and Bettendorf as part of the Quad-Cities area) during the fiscal years 1975 through 1980 and $9.81 million for use by the smaller metropolitan areas (Cedar Rapids, Dubuque, Sioux City, and Waterloo) over the same period. These funds, if not required for operating assistance, may be used as grants for capital improvements on an 80-20 matching basis. Cities with less than 50,000 population currently are not eligible for operating assistance under the formula grant program included in the 1974 Act.

Section 6 covers grants to do research and development and to finance demonstration projects. The program is discretionary with no fixed eligibility requirements or matching basis.

Section 9 authorizes grants for technical studies. These studies include the planning, engineering, designing, and evaluation of mass transportation projects. A grant or contract under this section is made in accordance with criteria established by the Secretary.

Section 10 provides fellowships for training of personnel employed in managerial, technical, and professional positions in the urban mass transportation field by states, local bodies and agencies. There are up to 100 fellowships (not more than 12 per state) available with grant assistance not to exceed $12,000 or 75 percent of the sum of tuition and other charges plus regular salary to the extent it is paid for up to one year.

Section 16 authorizes grants and loans to provide mass transportation services to meet the special needs of elderly and handicapped persons.

Section 207 appropriates funds ($20 million in F.Y. 75 and in F.Y. 76) for experiments with free fare systems.

Section 121 of the Federal Highway Act of 1973 provides that the Secretary may approve, as a project on any Federal-Aid system, the construction of preferential bus lanes, bus passenger loading areas and facilities (including shelters), and parking facilities to serve public mass transportation passengers. Under this section, the Secretary may also finance the purchase of buses. Federal participation is limited to that equal to the federal share which would have been paid if such project were a highway project (federal assistance for primary road projects currently is on a 70-30 matching basis).

Financing Rural Transit

The Urban Mass Transportation Act of 1964, as amended authorizes two programs which provide funding potential for transit services outside of urbanized areas. The first is Section 4(c) which states in part:

> "Of the total amount available to finance activities under this Act (other than under Section 5) on and after the date of the enactment of the National Mass Transportation Assistance Act of 1974, not to exceed $500,000,000 shall be available exclusively for assistance in areas other than urbanized areas..."
>
> The second is Section 16(b) (2) which states:
>
> "... the Secretary is authorized to make grants and loans to private nonprofit associations for the specific purpose of assisting them in providing transportation services meeting the special needs of elderly and handicapped persons for whom mass transportation services ... are unavailable, insufficient, or inappropriate..."

Appropriations up to $218,500,000 may be made to finance the programs and activities of the subsection, including administrative costs.

The Federal Aid Highway Act of 1973 specifically recognizes rural transportation in Section 147. This section authorizes funds ($15,000,000 for F.Y. 1975 and $50,000,000 for F.Y. 1976) to carry out demonstration projects for public mass transportation on highways in rural areas and small urban areas. Only new programs are eligible for funds. These funds can be used for passenger loading areas and facilities and the purchase of passenger equipment (except for rail). Projects must conform to requirements of Section 105 (1974 amendments to the Highway Act) which requires that these facilities be designed to allow effective utilization by elderly or handicapped persons.

Under the Economic Opportunity Act of 1964, Sections 212, 221, 222 (a)(7), 232(a) and 232(e) of Title II, funds for transportation can be included in the general budgets of local Community Action Agencies. Although this aid is generally used to finance the transportation of

program recipients (such as Head Start children from home to the program center and back), funds may also be used for general transportation projects to assist low-income and/or elderly persons or families.

Several provisions of the Older Americans Act authorize funds for the transportation of the elderly. One of the most widely used is Title III, which makes grants available for "transportation services where necessary to facilitate access to social services" (Section 302) and for special model projects that provide transportation for the mentally or physically handicapped (Section 308). Title IV, Section 412, is also widely used to provide for special demonstration projects. Also, funds may be obtained under Titles VII and IX. These funds are usually granted to private or public non-profit agencies or organizations through the State Commission on Aging on a 75-25 matching basis, although many Title III funds have been disbursed in Iowa on a 90-10 basis.

The Social Security Act (Titles I, IV-A, VI, X, XIV, and XVI) makes funds available to states to insure transportation for those persons eligible for the social service programs under this Act. These funds are available to states on a 75-25 matching basis. The Medicaid program (Title XIX) also provides funds, on a formula basis, for transportation to health facilities by recipients. Under this formula, the federal share may range from 50 to 83 percent.

The Rural Development Act of 1972 (administered by the Department of Agriculture) provides three possible sources of funds for public transportation under Title I. Long-term loans are available at low

interest for community facilities (Section 104) and businesses (Section 118(a)). Business enterprise grants (Section 121), though little used, are available for improving, developing, or financing business and employment. The basic key to loan or grant eligibility is that the program must facilitate development of private business in rural areas (including towns of 10,000 population or less).

The Housing and Community Development Act of 1974 authorized funds for community facilities under Chapter III (transportation could be designated as such). Twenty-five percent of the funds are allocated to non-metropolitan areas. This Act must be viewed as a potential source of funds for rural public transportation.

Revenue Sharing

Funds from revenue sharing (Title I of the State and Local Fiscal Assistance Act of 1972) can be used for either rural or urban transit. Although the federal government stipulates broad categories of use, the actual use of these funds is left to the discretion of the recipient. Capital, maintenance, and operating expenses for public transportation are authorized by the Act.

A total of $30.2 billion over a five-year period (ending on December 31, 1976) is being provided to 38,000 units of state and local governments. Iowa's share for F.Y. 1975 is about $86.1 million, of which $28.6 million goes to the state, $33.4 million to the counties, and $24.1 million to cities and towns.

Role of Other States in Funding Local Transit

General

Information presented in this section was gathered primarily from state departments of transportation or other similar state agencies and applies to transportation facilities provided for the general public. For the most part, transportation programs aimed toward specific target groups (elderly, persons on public assistance, children, or handicapped persons) are directed by other state or local agencies. It should be recognized, however, that there is a movement toward identifying these programs and groups, and efforts are being made to provide services for them through the same organizations which provide other public transportation.

A total of 24 of the 49 states surveyed indicated that they provided some form of financial assistance from state funds to local transportation organizations. Those states indicating no financial support from state funds are listed in Table 20. Inclusion on this list does not mean that those states are not directly involved in local transit, only that no direct financial assistance is involved.

Table 20. States providing no direct financial support to local transit, as of December 31, 1974.

Alabama	Maine	Oklahoma
Arizona	Mississippi	Oregon
Arkansas	Missouri	South Carolina
Colorado	Montana	South Dakota
Idaho	New Hampshire	Texas
Indiana	New Mexico	Utah
Kansas	North Carolina	Vermont
Louisiana	North Dakota	West Virginia
		Wyoming

It should be noted that many of these are rural states, with few major population centers requiring transit. Several of these states are currently seriously debating the relative merits of forming departments of transportation and providing financial assistance to local transit.

Source of Funds

The 24 states that provide some financial assistance to local transit are listed in Table 21, together with the source of revenue used and the amount budgeted in F.Y. 1975. It is clear that state general funds are most often used as a source of revenue for public transit, with state transportation funds running a distant second. (State transportation funds are either dedicated funds, used by all modes of transportation, or highway trust funds derived from road-use taxes, a portion of which is appropriated for public transportation.) In a few cases, specific sources of revenue are collected and earmarked for use by public transit. This includes sales tax (California and Illinois), motor vehicle registration fees (Illinois and Washington), cigarette tax (Massachusetts), and state lottery receipts (used to support reduced fares for elderly in Pennsylvania).

All of these are revenues collected statewide and do not include any local-option taxes collected by the state and returned to the local jurisdiction. Distribution of state funds will be discussed in the next section.

The actual number of dollars spent from state monies for local transit varies widely, but urban states generally spend much larger amounts than

Table 21. Sources of revenue for state financial assistance to transit.

State	Appropriations from general revenues	State Transportation Fund (or Highway)	State sales tax	Registration fees	Cigarette tax	State lottery	Total amount this F.Y. (x $1,000)[e]
Alaska	X						10,000
California			X				103,000
Connecticut		X					32,000
Delaware	X						4,200
Florida		X					7,600
Georgia	X						428[g]
Hawaii	X						303[g]
Illinois	X[a]		X[b]	X[c]			92,250
Kentucky	X						200
Maryland		X					77,800
Massachusetts	X				X		57,000
Michigan	X[d]	X					26,000
Minnesota	X						6,000
Nebraska	X						1,000
Nevada		X					75
New Jersey	X						97,500
New York	X						100,000[f]
Ohio	X						3,400
Pennsylvania	X					X	118,600
Rhode Island	X						2,000
Tennessee	X						1,600
Virginia	X[d]	X					21,900
Washington				X[c]			10,000
Wisconsin	X						7,000

a. For capital improvements.

b. For operating expenses.

c. Portion of registration fees collected in their area to RTA in Illinois, all communities and authorities in Washington.

d. Dedicated funds are the primary source of revenue; appropriations from the state general fund are small in comparison.

e. Many of these amounts are approximate and represent some rounding.

f. Plus a variable portion of bonds used for capital improvements.

g. Fiscal Year 1974 given only.

rural states. In some states, current spending levels are low, but significantly higher levels are expected in the near future (depending on legislative mandates). For others, current expenditures will be adjusted mostly by economic factors; energy costs, federal cost-sharing, and inflation costs. A few states are spending small amounts to assist local operators in determining their needs and in seeking federal assistance or to determine the extent of statewide needs. This could be translated into more substantial funding in the future.

Distribution of Funds

Formulas for distribution of state funds vary widely. States may provide funds for capital improvements, operating assistance, planning, or any combination of these. In some instances, non-dedicated funds may be provided, with little guidance provided for use of these funds.

Two states fit the latter category. California returns the proceeds of a 0.25 percent sales tax (a total of 4 percent is collected) to local governmental jurisdictions according to the amount collected in that area. These funds are earmarked for public transportation according to a priority schedule except where no local transit exists. In rural counties, where no need for public transit exists, the funds can be used for other transportation needs (bicycle and pedestrian trails, streets and roads, Amtrak, and payments to common carriers for public transportation services under contract).

In the State of Washington, communities and other public authorities which operate a public transportation system can levy a one percent tax on the fair market value of vehicles registered within their jurisdiction. This levy becomes a credit on the state motor vehicle excise tax of two-

percent and is returned to the local jurisdiction. These funds may be used for planning, operations, or capital improvements, but must be matched (dollar for dollar) from non-farebox revenues.

State grants for capital improvements. Most of the financial support for capital improvements for local transit is in the form of federal aid. Up to now funds have come primarily through Section 3 grants (Urban Mass Transportation Act of 1964, as amended). Currently, eligible recipients are receiving grants in amounts equal to 80 percent of the costs, with the remaining funds coming from local sources.

A total of 18 states provide a portion of the local share (see Table 22). In general, they have directed their resources toward supporting projects eligible for federal grants in an effort to generate federal funds with state funds. In Illinois, local jurisdictions can get a loan from the state, so that projects eligible for federal funds can proceed (when federal funds are delayed).

Distribution formulas vary (see Table 22). Four states provide all local matching funds, five provide over half the local share, and four more provide half. Some states vary their contributions toward the local share. Florida normally contributes 50 percent, but if the project is statewide in scope and impact, they provide all the local share. In Maryland, the local share of the Baltimore system comes entirely from state funds, whereas the balance of the state gets 75 percent of the local share. Massachusetts may pay up to one-half of the local share. However. in practice, the state contributes nothing for a good operation and 10 percent (half of local share) for a poor operation or one just

Table 22. Allocation of state funds to local transit.

State	Capital improvements						Operating assistance					Tech. assist.	Special projects funded		
	Does state provide funds? Y(yes) N(no)	Portion of local share-state funds					Does state provide funds? Y(yes) N(no)	Portion of local share-state funds				Specifically allocated funds. (Not including statewide planning)	Reduced fares-elderly	Demonstration grants	Other
		All	Over half	Half	Not Known	Variable		All	Over half	Half	Variable				
Alaska	Y				X		N					Yes			
California	Y					X	Y				X	Yes			
Connecticut	Y	X					Y	X				Yes			
Delaware	Y	X					Y		X			Yes			
Florida	Y			X		X	N					Yes		X	
Georgia	Y			X			N					Yes		X	
Hawaii	N						N					Yes			
Illinois	Y		X				Y		X			Yes	X		
Kentucky	N						N					Yes			
Maryland	Y		X			X	Y			X	X	Yes	X	X	
Massachusetts	Y			X		X	Y			X		No			
Michigan	Y		X			X	Y				X	Yes		X	
Minnesota	N						Y		X			No		X	
Nebraska	N						N					Yes	X		
Nevada	N						N					Yes			
New Jersey	Y	X					Y		X		X	No	X		
New York	Y		X				Y				X	No			
Ohio	Y					X	N					No	X		
Pennsylvania	Y		X				Y		X		X	Yes	X	X	X
Rhode Island	Y	X					Y	X				Yes			
Tennessee	Y			X			N					Yes			
Virginia	Y		X			X	N					Yes			
Washington	Y					X	Y				X	Yes			
Wisconsin	N						Y		X			Yes	X	X	

beginning. Michigan pays 80 percent of the local share, except for small grant applications, which are fully funded. Ohio's contribution varies (no strict formula), but averages about 20-25 percent of the local share. The Virginia legislature distributes funds directly to the five major urbanized areas, and pays 85 percent of the local share for the remaining urban areas.

Even when a state has an allocation formula, the state contribution may vary. Illinois has four different provisions whereby the state can pay more than the usual two-fifteenths of the total cost.

The impact of federal grants for capital improvements is particularly well emphasized by the fact that only three states reported a program of grants from state funds for projects not eligible for federal funds. Florida grants up to one-half of the cost of projects with localized scope and impact, up to 100 percent of small local projects to install or upgrade safety equipment, and all of the cost when local or area sponsorships cannot be determined. Illinois can provide two-thirds of the cost if the project can fulfill an extremely urgent need. Tennessee can pay one-half of the total cost of a project that cannot be federally funded.

Operating assistance. Distribution procedures for operating assistance from the state to local transit also vary. Much of the difference can be attributed to the desire of state legislatures to provide incentives for improved service and good management. In all, 14 states provide operating assistance (including California and Washington). See Table 22 for a complete list.

Connecticut and Rhode Island pay all of the operating losses, except that Connecticut will not pay all if revenues do not equal or exceed 60 percent of the operating cost. New Jersey pays 75 percent of the operating losses of buses and all losses on commuter railroad services. Massachusetts grants one-half of the operating loss, providing the cost to the public shall not exceed two-thirds of the cost of the operation (revenues should provide at least one-third). Maryland assumes all the operating losses of the Baltimore system, but one-half elsewhere.

Michigan provides up to 33 percent of the operating costs, disbursed by a two-factor formula. Of the funds allocated for operating subsidies, half is distributed according to the percentage of urban population compared to statewide urban population. The other half is pro-rated in accordance with the share of annual transit vehicle miles compared to the statewide total.

The Legislature of New York appropriated $94.1 million of the $100 million during fiscal year 1975 to the Metropolitan Transportation Authority and other regional transportation authorities. The balance of the funds is disbursed under an incentive program, as follows:

Commuter rail - $0.02 per passenger + $0.25 per vehicle mile

Rail rapid transit - $0.02 per passenger + $0.08 per vehicle mile (including subway)

Buses - $0.02 per passenger + $0.07 per vehicle mile

Pennsylvania pays up to two-thirds of the operating losses, but the amount shall not exceed 50 percent of the operating revenues.

Technical assistance. In the questionnaire, technical assistance referred to planning and/or design. For most states, however, grants for technical assistance are only for planning.

Although additional states very likely include some level of transit planning as part of their statewide planning efforts, only 19 specifically indicated direct financial support (see Table 22). A few states provide this assistance from their own staff, to the extent that this could be considered a line item in their budget. Some do as much as possible with their own personnel and assist in the expense of hiring consultants for the remainder. Most of the states have specific formulas for allocation of funds as a portion of the local share of federally financed studies. Where the state provides financial assistance, a minimum of 50 percent of the local share is provided from state funds.

The dollar value of grants for technical assistance is not great in comparison to the amounts spent for capital improvements or operating subsidies. In some states, funds are appropriated in order to assist local jurisdictions in their quest for federal grant monies for transit, particularly in speeding up the process. In others, these funds are used to pinpoint needs for either initial financial assistance or continuing aid.

Assistance for special projects. A few states have appropriated funds for special projects to solve specific needs. Most of these projects fit three categories: reduced fares for elderly, demonstration projects, and transportation for the handicapped (see Table 22).

Six states, Illinois, Nebraska, Ohio, Maryland, Wisconsin, and Pennsylvania, indicated that funds are available to local jurisdications for

reduced fares (or free fares) for the elderly. For example, Nebraska has appropriated $1 million that, among other purposes, is used to reimburse those metropolitan-operated bus lines that provide service to persons age 60 or over at a fare of $0.10 or less during non-peak hours. Pennsylvania has appropriated 30 percent of gross revenues from the state lottery ($11 million) for free transit service for the elderly during non-peak hours. Illinois provides operating assistance of a maximum of $0.25 per rider (up to one-half) for reduced fares for elderly persons and students. Reduced fares for elderly are subsidized by Maryland in Baltimore and by Wisconsin in Milwaukee. Ohio has appropriated $2 million to reimburse operators who reduce elderly fares by $0.10 for calendar year 1975.

Delaware has established the framework of a system of specialized transportation for the elderly and the handicapped. It is known as the Delaware Authority for Specialized Transportation (DAST) and operates in one county. It will be expanded in the future to cover the state and will receive financial assistance from the state.

Although a number of states are conducting studies or reviewing proposals for demonstration projects, only seven listed funds appropriated specifically for demonstration projects. In general, the cash resources put into these projects are not large. Indeed, sometimes only one project is funded, but it is the one among several proposals that shows the greatest promise for statewide application.

Accordingly, the trend is to increase the level of state participation if the project may show broad statewide application. Michigan, Pennsylvania, and Florida seem to be extensively involved with demonstration

projects. Michigan's involvement with demand-actuated public transportations demonstrations might be of great interest to Iowa, since their Dial-a-Ride demonstration projects are concentrated in smaller cities, cities that would have trouble economically justifying a scheduled bus system.

The only remaining special projects are listed by Pennsylvania. In Pennsylvania, projects involving promotion or advertising are eligible for a 50 percent state match, while straight research is funded 100 percent by the state.

Indirect Assistance

There are a number of non-money forms of assistance which can be provided to local transit operators and could collectively be of significant benefit to them. This is often referred to as indirect assistance and generally is given in the form of exemption from payment of certain taxes or fees. To the tax collecting body, this represents income foregone; to the local transit operator, it means a reduction in operating expenses. Some of the more common forms are listed in Table 23. For the most part, exemptions seem to be restricted to public operators. Undoubtedly, this is due in part to the ever decreasing number of private operators.

Local Sources of Revenue

Information on local sources of revenue (other than state funds) was obtained mostly from the states visited for personal interviews. Enough information was gathered from these states to show definite trends.

The primary revenue sources of funds for local jurisdictions were general funds and federal revenue sharing. Although there are a number

Table 23. Indirect assistance to local transit operators.

Type of assistance	Status - granted by*
Exempt from local property taxes	Nearly all
Exempt from motor fuel taxes	Nearly all
Authority to sell tax exempt bonds	About half
Exempt from state income taxes	About half
Exempt from local income taxes	Less than half †
Exempt from motor vehicle registration fees	Most states
Fares exempt from sales/use tax	Most states
Exempt from special assessments	About half
Exempt from excise taxes	About half
Lease of operating equipment at less than cost	Five states ‡
Exemption from franchise/license fee	About half

Notes:

* Not all states completed this portion of the questionnaire (70% return)

† Use of local income taxes for revenues is common, but not widespread.

‡ Personal interviews indicated a lack of enthusiasm for state involvement in direct purchase of equipment.

of different ways used to replenish general funds, the single most important one is the property tax. Some states have a local option, providing for a millage rate dedicated for public transit. Although this is not from general funds, the real source is the same, local property tax.

Several states utilize local income tax or sales tax revenues. In Georgia, the City of Atlanta uses a one percent sales tax, while the rest of the cities use general funds. There are a few other sources of income, generally limited to one state. Some of these are:

1. Revenue from liquor sales
2. Household tax
3. Business and occupation tax (flat rate on gross receipts)
4. Toll revenues
5. Motor vehicle taxes

In several states, sources of revenue other than general funds can be used, but generally must be approved by a referendum. Some of these are used by local jurisdictions in Florida, Kentucky, New York, Ohio, California, Illinois, Michigan, Nebraska, Oregon, Utah, Virginia, Washington, and Wisconsin.

Source of Funds - State of Iowa

State Funds

Currently, there are no state funds being appropriated or dedicated directly for public transportation. However, various human resource agencies provide funds to finance transportation needs of program recipients as

described previously.

Amounts spent each year on transportation reimbursement are not known because this expense seems to be included with other expenses. Agencies involved in funding transportation include the following:

- Commission for the Blind - travel reimbursement is available upon request for some travel needs such as to the state universities or the center in Des Moines.
- Commission on Aging - funds are available, through the Older Americans Act, for transportation services for elderly.
- Department of Social Services - sponsors a variety of programs which can provide funds under Title IVA of the Social Security Act for transportation reimbursement to certain program recipients.
- Department of Health - provides some travel reimbursement or, on some occasions, sends an employee to transport program recipients.

It should be recognized that much of the money used for transportation by these agencies is merely filtered down from the federal level from programs mentioned earlier in this chapter.

Local Sources of Revenue

Local jurisdictions have only two sources of revenue available. These are (1) revenue sharing funds and (2) local property taxes.

Recommendations

It seems reasonable to expect the continuing availability of the federal funds discussed earlier in this chapter. Only one source is in any immediate danger of expiring, and this is revenue sharing, due to end on December 31, 1976.

There are two potential problem areas with federal funds, namely:

- Grants are usually made on an annual basis, so that each year a new grant proposal must be submitted. A previous grant does not necessarily imply future grants.
- Programs are often set up for periods of only two to five years. Unless extended or replaced by Congress, they cease abruptly.

However, in recent years Congress has been looking more favorably upon the financing needs of local transit. Future prospects concerning the availability of energy and a variety of problems in our urbanized areas, of which transportation plays a significant role, support arguments favoring a prominent federal role in financing transit.

In recent years, federal programs have been fairly responsive to the needs of local transit. The programs referred to earlier in this chapter are quite extensive and cover a majority of the needs of local transit.

It is therefore recommended that state and local financial resources be used to maximize the value of federal assistance to local transit. This can be accomplished by making state funds readily available for use with local funds as the matching share for any needed transit project eligible for federal funds.

One of the current problems of local government is the lack of flexibility of their sources of tax revenues. As in most states, local governments in Iowa use general funds as their primary source of income, and a bulk of this income is derived from the property tax.

Reliance on the property tax by local government has been attacked from all sides, and some measures have been taken to relieve the tax burdens placed on property owners. The tax base (assessed valuation) does not grow at the same rate as the demand for increased tax revenues, particularly in an inflationary period. In addition, the property tax lacks revenue elasticity in that it does not grow at the same rate as income.

In the belief that future demands for public services, including transit, will place an unnecessarily great burden on local property taxes and that new sources of revenue are needed, it is recommended that local governments (cities and counties) be given the authority to impose additional taxes by local option for the support of transit. The source of revenue could be either a retail sales tax or a payroll tax. Both of these taxes tend to impose a burden on all beneficiaries of a transit system rather than upon only the residents of a narrowly defined area.

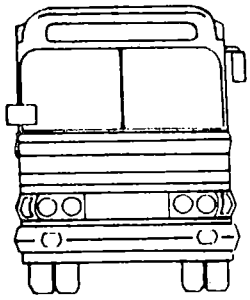
Road-user taxes in Iowa are dedicated by a constitutional amendment to be used only for highway purposes. Even though some states have utilized these funds to support transit and other modes of transportation, this is not recommended for Iowa. The process of amending the Iowa constitution requires a minimum of three years whereas the need for transit funds is immediate. Even though an evaluation of funding sources for all modes of

transportation is necessary and such an evaluation should consider the desirability of utilizing road-user taxes to support total transportation, it is recommended for the present that funds be made available for transit from the state general fund. Taxes which accrue to the general fund tend to increase at least in proportion to the rate of inflation, a factor which is not true of most excise taxes or special taxes. For this reason, most states that provide funds for local transit utilize money appropriated from state general funds.

Other sources of revenue were considered for local transit, such as a lottery, but it is difficult to determine what structure could be used to collect these funds or how much net income might be available.

Earlier in this chapter, reference was made to various sources of federal funds available for rural transit. A number of these sources of revenue are being used in Iowa for transportation, particularly in rural areas, for specialized transportation needs. Some of the funds are direct grants, while others are in the form of reimbursement for transportation services.

These funds are expended by a number of different public and private non-profit agencies within the state. The dollar value for transportation in Iowa under these programs is not known, due to the number of agencies involved and the inability to separate the expenditures for transportation from other expenditures. It is therefore recommended that steps be taken to identify these expenditures in order to avoid duplication of efforts and to provide additional operating revenues for local transit operators. (Note that such a program has been authorized in legislation enacted by the 1975 General Assembly.)



FORMULATION OF A STATE TRANSIT PROGRAM

Recent experience regarding urban transit service indicates that fare box revenues are rarely sufficient to maintain quality equipment and services. Indeed, revenues seldom cover the expenses of the day-to-day operations. Recognizing the importance of a viable public transportation system in their community, many local governments have developed financial assistance programs to maintain service in their jurisdiction. As costs continued to increase, some state governments and the federal government have also initiated programs to assume part of the financial burden. This assistance has developed in many indirect and direct forms. Indirect assistance has been through such means as exempting carriers from sales, income, and excise taxes and vehicle registration fees. Direct assistance has been in the form of technical, capital, and demonstration grants and operating subsidy programs. A comprehensive summary of these state and federal programs for urban and rural transit is provided in the preceding chapter of this report. In this chapter, the basic programs and experiences of other states with these programs are evaluated.

Objectives of this portion of the study are to identify characteristics

which would be most appropriate for a public transportation assistance program in Iowa and then to formulate alternative programs. Specific elements which are addressed include current funding level experience of other states for regular services, expected cost increases of transit operations, methods for allocating program funds to eligible transit agencies, reporting measures needed to assure funds are used to develop quality programs, and special projects which may be incorporated in a financial assistance program.

State Programs for Capital and Operating Assistance

As indicated above, financial assistance has been provided in many direct and indirect forms. However, from the viewpoint of total dollar expenditures, the most significant efforts have been capital and operating assistance programs for regular urban service. Table 21 shows current total expenditures for all state programs. The data provided by the states on the detailed questionnaire, however, permit a more detailed examination of the relative importance the states have placed on the two major programs. Table 24 provides a summary of the last fiscal year financial program as well as the program for the next two fiscal years. In addition, other parameters which were examined to learn of any pattern which might exist between the states' demographic and economic characteristics and their funding levels are also shown. The variables examined include population, population density, urbanization, individual income characteristics, and state per capita revenue. For comparison, the population parameters for Iowa are also shown.

Table 24. State funding and demographic characteristics.

State	Expenditures last fiscal year $ millions		Average expenditures next two fiscal years $ millions		Population (1973 prel.) (000)	Pop. per square mile	% Metro	% Urban	% State per capita income to U.S. per capita (1973)	% Below low income level (1969)	State per capita revenue ($)	Per capita transit assist. (Next 2 years)
	Capital	Operating	Capital	Operating								
Alaska	5	0	10	0	330	1	0	48	114	9.3	1,282	30.30
California	70(1)	24	50(1)	50	20,601	132	93	91	111	8.4	567	4.85
Connecticut	12.5	8.38	20	11.7	3,076	633	83	77	120	5.3	481	10.30
Delaware	2	1	2	2	576	291	70	72	113	8.2	702	8.40
Florida	3.84	0	7.21	0	7,678	142	69	80	94	12.7	394	0.94
Georgia	0.42	0	0.42(2)	0	4,786	82	50	60	86	16.7	428	0.10(5)
Illinois	25	51	37.5	125	11,236	202	80	83	117	7.7	480	14.50
Maryland	54	17	48.4	29	4,070	41	84	77	108	7.7	479	19.00
Massachusetts	57	(3)	57	(2)	5,818	743	85	85	106	8.6	504	
Michigan	7.21	10.88	7	10.5	9,044	159	77	74	111	7.3	516	1.90
Minnesota	0.50	1.0	1.0	2.0	3,897	49	57	66	100	8.2	553	0.77
New Jersey	20	72	40	85	7,361	979	77	89	117	6.1	393	17.00
New York	110(4)	100	110	100	18,265	382	86	86	115	8.5	608	19.00
Ohio	1.4	0	2.0	0	10,731	262	78	75	102	7.6	329	0.19
Pennsylvania	33.24	70	35	83	11,902	265	79	71	100	7.9	471	9.91
Rhode Island	0.05	1.6	0.3	1.75	973	928	85	87	97	8.5	508	2.11
Tennessee	0	0	1.5	0	4,126	100	49	59	80	18.2	375	0.36
Virginia	20	0	20	0	4,811	121	61	63	96	9.1	414	4.15
Washington	5(5)	5	5(2)	5(2)	3,429	52	66	73	101	7.6	560	2.90(5)
Wisconsin	0	1	0	4.5	4,569	84	58	66	94	7.4	531	1.00
Iowa	-	-	-	-	2,904	52	36	57	99	8.9	423	-

(1) Estimated. Total was $94 million. Until January 1, 1975, 75 percent of monies was to be used for capital; after that date the portion required for capital usage dropped to 15 percent.

(2) The value was not provided by state; funding level assumed to remain at comparable level of previous year.

(3) Information indicates that capital investment is primarily intended.

(4) Total figures over a specified period of time were provided; these figures were reduced to annual value.

(5) Total expenditures given; an equal split was estimated by study staff.

DATA SOURCES: Funding levels obtained from ERI Form 818-2
Population and income data obtained from Statistical Abstract of the U.S., 1974; Bureau of the Census

Examination of the many combinations of variables did not indicate a numerical pattern which would suggest a clear guide to the funding program which would be necessary or appropriate in Iowa. The only definite numerical pattern was the relationship between the income variables and the binary variable of whether or not a state participated in these assistance programs. An examination of the experience of the 20 states shown in Table 24, plus Hawaii, indicated that these states have an unweighted per capita income 4.3 percent above the national average, whereas those states not providing such assistance have a per capita income 18 percent below the national average. Hawaii is included in the first group because even though the returned questionnaire indicates no state funding, the monies from the state are, in fact, turned over to the counties, who have the authority for mass transportation programs. An analysis of the variance indicated that the group differences are statistically significant.

A similar statistical difference was evidenced by another variable, percent population in the low income (as defined by the U.S. Bureau of the Census) level. States which now provide assistance have only 8.9 percent of their population in the low income level whereas other states have 13.8 percent in this group. By comparison, per capita income in Iowa is 99 percent of the national average and Iowa has 8.9 percent of the population in the low income group.

Although no definite numerical relationship exists among the parameters, regional patterns are evident. For example, all of the northeastern states from Massachusetts and New York to Virginia provide transit assistance as do the midwestern and Great Lakes group of

Illinois, Michigan, Michigan, Minnesota, and Wisconsin. On the other hand, none of the southwestern, mountain, or plains states are currently providing direct assistance. The latter groups of states, of course, generally exhibit lower population densities and lesser degrees of urbanization.

Of the 20 states providing regular capital or operating assistance, six provide funds only for capital assistance while one provides only operating assistance. Overall, the annual capital grant expenditures from state funds for the next two fiscal years is estimated to be approximately $400 million while state operating subsidies have been estimated to exceed $500 million.

A final review was based on the per capita expenditures shown in the last column of Table 24. The average per capita assistance for regular capital and operating programs is approximately $7.00. The funding experience of other midwestern states, Illinois, Michigan, Minnesota, and Wisconsin, shows that per capita expenditures for capital and operations are $1.60 and $5.00, respectively. If the more densely populated Illinois is not considered, the comparable values are approximately $0.50 and $1.00. Using the latter figures, a first estimate of a funding level for Iowa would be an annual capital budget of $1.5 million and an operating budget of $3 million. A more detailed analysis of Iowa's specific needs is presented later.

Demonstration and Special Service Programs

At least six states provide special programs to provide reduced fares for the elderly. Although dollar values associated with each of the programs are not always evident, apparently the most comprehensive program is the $11 million allotment in Pennsylvania. The federal government encourages the development of these programs and, in fact, requires elderly reduced fare programs in the off-peak period for transit agencies requesting operating assistance. A minimum level of effort suggested for Iowa would help local operators maintain operating revenues in the face of losses incurred by their provision of service to the elderly at reduced fares.

The review of transit in Iowa indicated a multiplicity of specific rural transportation projects. In Iowa and other states these projects are primarily funded from federal programs on a cost reimbursement basis. A few state DOT's have, however, initiated special programs within their own division to promote projects which are open to the general population in rural areas. For example, Georgia has one rural demonstration project ($465,000) and Maryland has a single rural project ($300,000) under evaluation. In New Jersey and New York, any rural operation is considered to be eligible for state funds because there are no restrictions on urban versus rural operations. Pennsylvania has recently conducted surveys to suggest a direction for rural programs, but the special transportation services currently are largely a responsibility of the Department

of Agriculture rather than the DOT. Oregon has proposed a $200,000 capital program for rural projects.

Intercity transportation programs, while not as extensive in number as rural projects, have received considerable emphasis in state transit programs. In 1974, New York approved bond sales for $250 million to preserve and enhance commuter and intercity rail passenger and freight service. During the on-site visits, representatives from Ohio, Oregon, and Wisconsin indicated a particular desire to expand intercity bus service. Oregon would like to devote up to 10 percent ($295,000) of the state's proposed program to intercity bus transportation and another $600,000 for Amtrak operations. Wisconsin expressed an interest in devoting up to $3 million per year for intercity operations.

Many other states have provisions for demonstration grants which do not specify the exact nature of the program to be undertaken. The state usually funds the largest portion of the demonstration project. For example, Michigan requires that 10 percent of the transit funds be used for demonstrations. Many of these projects have been for demand-responsive bus demonstrations. The state may fund up to 100 percent of all costs, less $1,000, during the first year. After that the local operation may acquire the capital equipment for a nominal fee. Florida similarly uses demonstration project money to fund 85 percent of costs in the first year and perhaps 15 percent in the second year. Wisconsin's $2 million planning and demonstration budget for 1973-1975 could provide up to 100 percent funding for up to one year.

Encouragement of innovative public transportation development

programs should be a principal activity of the Public Transit Division. A partial list of projects to be considered would include extending daily or weekend service hours, implementing express routes with preferential bus lanes, subsidizing taxi operations, implementing elderly fare programs, or developing completely new transit services in or between communities not now served by a transit system. Projects in the last category can require substantial funds to be of value, but are of particular relevance in Iowa. Therefore, two such projects are discussed more completely here, new urban transit systems and intercity bus transportation.

Demand-Responsive Transit Potential for Iowa Cities.

There are currently eight communities in Iowa of 10,000 or more population which do not have transit service. These cities, and the 1970 populations, are Spencer (10,278), Oskaloosa (11,224), Boone (12,468), Fort Madison (13,996), Keokuk (14,631), Newton (15,619), Muscatine (22,405), and Fort Dodge (31,263). The diverse travel patterns and low population densities generally make traditional fixed route service an unattractive transportation alternative, at least in the smaller of these communities. Transit systems which are more oriented to the consumers' needs must be implemented if the community is to be truly served by a transit system. Consumer oriented public transportation concepts have recently been initiated in the form of demand-responsive systems, shared ride taxis, jitney service, etc. Operating experience with demand-responsive systems is developing rapidly, and there are now over 70 such operations throughout the

country. A demand-responsive system will not be the answer to eliminating transit deficits, but in many of the smaller urban areas it provides a quality of service which captive and choice riders will use.

On a statewide basis, Michigan offers the most extensive opportunity to evaluate cost and ridership patterns of these services. The research staff has examined these data and used the information to determine probable start-up costs. A summary of these costs is provided below. The Iowa DOT is encouraged to review these operations, as well as other operations, but it is cautioned to recall that each operation should be carefully tailored to each particular community's needs; thus cost and ridership patterns evident in a community of 40,000 in Michigan may not have a meaningful relationship to a particular community of 12,000 in Iowa. On the <u>average</u>, however, the cost comparisons should be useful.

Typical demand-responsive operations during start-up may have one bus for each 4000 to 6000 population. This would suggest, for example, that a community of 14,000 might begin a service with three buses, two for regular operation and a third bus as a back-up. Bus sizes might range from 12-passenger modified vans to 20- or 25-passenger buses, with tradeoffs based on demand, bus reliability, maneuverability, expected life, etc.

Michigan data indicate that start-up cost in 12 cities averaged approximately $40,000 per bus for the first year of operation. The start-up costs included equipment, office space, insurance, professional services and operating labor. For all systems, the average cost per vehicle hour was $7.50 and the average cost per mile was $0.64. The

latter figure can be compared with an average operating cost per mile of $0.81 for small urban areas in Iowa (See Table 7, 1974). The cost per passenger, however, would be expected to be higher because of the lower concentration of riders per mile driven. Michigan's cost per passenger averaged $1.87 in 1974 on demand-responsive systems, whereas costs ranged from $0.62 to $2.71 for fixed-route service. (In Iowa the cost per passenger for scheduled service was $0.50.) Costs in Michigan for demand-responsive service translated into average monthly deficits of $5,300 for systems operating three to five vehicles.

A demonstration program for establishing public transit service in communities of 10,000 to 20,000 population in Iowa would be expected to have a first year start-up cost of $150,000 to $200,000 per community. In subsequent years, annual operating deficits may be $64,000 to $72,000.

Intercity Bus Transportation

As indicated earlier, intercity bus service in Iowa has been declining. There are now 16 county seats and two additional cities with populations greater than 2500 having no intercity service. Even where service is available, the bus mode may not be viewed as a viable transportation alternative due to service frequency, excessive travel times, uncoordinated inter-line or inter-modal schedules, or terminal facilities which are either of inferior quality or non-existent. Whatever the reason for low ridership, carriers cannot foresee sufficient gains in revenues to justify improving facilities or operating schedules in these smaller communities. In some cases, current revenues

are less than or just equal to operating expenses. Further, regular passenger service is often "subsidized" by the more profitable charter and freight services so unless these latter services can generate sufficient revenue a private carrier is not likely to establish new services.

The Iowa DOT should evaluate the current role of intercity bus transport and the desirability of participating in programs which would improve the image and service quality of intercity public transportation. As in urban systems, the value may be measured in terms of social welfare benefits as well as economic benefits. A comprehensive study in Oregon (21), for example, indicated that although over 60 percent of the riders were licensed drivers, 17 percent did not have access to a private auto and therefore had to rely on this public service.

Programs which may be worthy of financial assistance are:

- Improvement of terminal facilities. Since the terminal projects the first and final image to potential users, this effort should receive high priority.
- Acquisition of operating equipment by the state for lease to intercity carriers. Extension of area coverage or schedule frequency may not be possible due to limited equipment, or capital to acquire same, unless assistance is provided.
- Low interest loans to carriers for acquisition of equipment to be used in prescribed service.
- New or improved service initiation. The state should consider the need to provide more nearly equal transportation

opportunities to all and the potential energy conservation gains to be attained by encouraging greater utilization of bus transportation. Operating subsidies to carriers offering new or improved service to Iowa communities may be justified to achieve these objectives.

- Assistance in coordinating schedules between bus carriers.

Any of the programs indicated above would involve the use of government funds to assist private operators directly or indirectly. All arrangements would therefore require close coordination between the operating agencies and the state to assure that unfair competition among carriers is not promoted.

Projected Costs of Operations

The costs of providing transit service in Iowa were presented earlier (Tables 4 through 7) in terms of total operating costs and revenues, operating costs per revenue mile, and percent of costs covered by revenues. Between 1973 and 1974, total operating expenses in the seven metropolitan areas had increased approximately 16 percent, and cost per revenue mile increased about 11 percent. The higher costs resulted in an increase in the operating deficit of 42 percent for these transit properties. The costs per revenue-mile ranged from $0.79 in Cedar Rapids to $1.20 in Des Moines.

Operating data in small urban areas did not exhibit increases as large as those in the metro areas; however, data are less reliable in the smaller cities.

The operating costs and rates of increase cited for Iowa are consistent with operations in other states. For example, Maryland anticipates an annual increase of bus operating cost per mile of 10 to 14 percent. In Wisconsin, the 1973 estimated costs per revenue mile were given as follows: $1.04 in Milwaukee; $0.69 to $0.87 in cities of 100,000 to 250,000; $0.64 to $1.04 in cities of 50,000 to 100,000; $0.50 to $1.00 in cities of 25,000 to 50,000; $0.35 in cities of 10,000 to 25,000; and $0.51 in smaller urban areas.

Operating deficits in Wisconsin were found to have increased 48 percent in 1973 and were projected to increase by over 400 percent in 1974 and 1975, the first years after initiating their assistance program. From 1976 to 1979, the projected deficit is expected to increase by an overall annual average of 20 percent.

New York estimates their operating deficits will increase 144 percent from $263 million in 1973 to $642 million by 1975. Between 1975 and 1980, the increases are estimated to be about 20 percent per year, resulting in a 1980 deficit of over $1.3 billion.

Increases in capital expenses may more closely follow trends in the national economy than the operating deficit patterns. A single example illustrates the higher costs which transit operators may face. The estimated cost of a new 51-passenger bus in 1973 was estimated by one agency to be $45,000 but by 1974 the price was approximately 22 percent higher at $55,000.

Five-Year Capital Needs and Operating Deficits

Five-year capital needs determined by the metropolitan and small urban areas currently providing transit service are shown in Table 8. Generally, 80 percent of the capital needs could be provided from federal funds. If the full program were to receive this federal support, the state and local contribution needed for metropolitan areas would be approximately $4,680,000 during this five-year period.

The five-year program is not yet defined in several small urban areas. However, the staff estimates that total capital needs would be on the order of $5 million dollars. State and local contributions for these areas would then be $1 million.

Operating deficits of these agencies for 1973 and 1974 were shown in Tables 4 and 5, and more historical operating data have been included in Appendix E. Under provisions of Section 5 of the Urban Mass Transportation Act, metropolitan areas are eligible for operating assistance. The amount of federal assistance which can be received is subject to the requirement of a continued "maintenance of effort." This is to ensure that state and local support in the form of non-farebox revenues and subsidies will be maintained for the provision of mass transportation services. Briefly, state and local "maintenance of effort" funds equal to the average expended over the two immediately preceding local fiscal years must be maintained during the year for which assistance is sought, but in no case shall the federal share exceed 50 percent of the operating losses.

Under this program, metropolitan areas in Iowa are eligible for nearly $21 million from 1975 through 1980. Any of the $21 million allocated which is not expended for operating costs can be used for capital improvements on an 80-20 matching basis.

Based on the operating deficit growth rate discussed in the previous section, the deficit in the first year of an operating assistance program in Iowa was conservatively assumed to increase by 40 percent and in subsequent years by 20 percent annually. Although service expansions in different cities would cause considerable variations, these rates were uniformly applied to all communities for this analysis.

Sufficient details are not available to the study staff at this time to determine the average level of effort for the metro areas over the past two years. If the local contribution equaled the total operating deficit, the metro areas could not expect to receive the full 50-50 cost share until the third year of the program. The following is a summary of the five-year estimated program, based on the above assumptions, for the metro areas:

	1975	1976	1977	1978	1979
Estimated operating deficit	3,172,000	3,807,000	4,568,000	5,482,000	6,578,000
Contribution from Section 5 funds	1,240,000	1,708,000	2,284,000	2,741,000	3,289,000
Remainder to be covered by state and local entities	1,832,000	2,099,000	2,284,000	2,741,000	3,289,000

Thus, of the estimated $23,600,000 five-year deficit, approximately $11,300,000 would be eligible for reimbursement from the federal program.

In small urban areas the estimated five-year deficit for existing operations is $6.8 million. The total operating deficit for all cities, to be covered by local funds, would be about $19 million.

Alternative Programs for Iowa

Development of a financial assistance program must be centered around the goals which have been set forth for public transportation service and the policy objectives of the state. A basic concern for public transportation needs was broadly indicated through formation of the Iowa DOT. The basic policy statements of the Public Transit Division (PTD) suggest the extent to which the transportation goals should be pursued by the state. Programs suggested here are designed to address the achievement of the policy objectives.

Four program alternatives are presented here. The first program would direct attention only to the technical assistance and advocacy role of the PTD. The second level program would, in addition, provide financial assistance to existing transit properties so they may maximize the utilization of transit-related federal funds. The third level program would permit the PTD to assume a role in encouraging and developing new and innovative transit service to meet the needs of special groups in addition to sharing the costs of existing transit service. The final program alternative expands the funding level alternatives of the previous program and considers additional rural transit programs.

Program Level 1

The minimal program to be considered would provide funds to allow for professional assistance regarding grant applications, technical planning, equipment and operational programs, and management. This program should provide funds for matching technical grants, to develop management training workshops, to pursue public transit information programs, etc. An annual allocation of $200,000 would be required.

Program Level 2

Maximum use of available federal funds is not currently achieved in Iowa. One of the reasons for this is that some transit agencies are not aware of many of the federal programs. In addition, communities might not be able to take full advantage of the federal assistance because of insufficient matching funds. Program Level 2 would permit the PTD to evaluate needs in Iowa and extend state financial assistance to be used for matching monies.

The total five-year capital and operating needs were shown earlier to be approximately $23.4 million and $23.6 million, respectively, for the metropolitan areas. Funds potentially available from federal programs during this five-year period for capital and operating assistance are $18.9 million and $11.3 million, respectively.

In small urban areas the capital and operating needs were estimated to be $5.0 million and $6.7 million, respectively. Under current programs, federal funds totaling up to $4.0 million dollars could be attained.

The issue of splitting the non-federal share in Iowa has not been addressed, but the experience of all other states is summarized in Table

22. Cost sharing experience for capital assistance varies from 25 percent to 100 percent state share, but the average split is about 70-30 between state and local entities. States have not yet had experience with cost sharing of the non-federal share of operating deficits. In general, there does not appear to be any strong reason to indicate that the state should bear more than 50 percent of the non-federal share for projects receiving federal assistance from Program Level 2. However, in small urban areas, not currently eligible for federal operating assistance, an equitable program should make allowances to provide up to a 75 percent share of operating deficits from state funds.

The financial program for Level 2 would then consist of $250,000 annually for the assistance provided in Program 1 (increased $50,000 for increased data requirements and data file maintenance). In addition, the five-year program would require $11,175,000 for operations and $2,840,000 for capital programs. The annual allocation for these expenditures would therefore be $2,800,000, giving a Program 2 total of $3,050,000 annually.

Program Level 3

An important role of the PTD is to provide leadership in the development of service improvements and new programs. A first priority should be to evaluate the transportation needs of those communities over 10,000 population not served by transit. In particular, the communities over 20,000 should be given very early attention. The study staff has not conducted a detailed analysis of the two communities falling in this category, but an estimate of the start-up capital needs was set at $1.3

million. If federal funding is obtained and the state provides 50 percent of the non-federal share, the state share would be $130,000. A similar assessment of the operating deficit suggests a five-year deficit of $1.5 million. Using the same cost sharing basis as Program 2, the annual state share would be $225,000 for operations and an annual average of $25,000 for capital costs.

Demonstration programs in city sizes of 10,000 to 20,000 population should also be considered. Development and evaluation of new, innovative services not only benefits the area served but also assists the Division in evaluating service offerings. Since the benefits attained may have local, state, and even national significance, there is justification for providing cost sharing ratios in excess of those established for traditional services.

Consumer-oriented, demand-responsive systems for cities of this size would cost up to $150,000 or $200,000 for start-up and operation. In subsequent years, the operating subsidy might range from $64,000 to $72,000. Bus replacements should be planned for every three to five years. Assuming an average capital requirement of $70,000, the federal contribution would be $56,000, if federal funds could be acquired. It is recommended that the state assume 75 percent of the non-federal share for the first year and thereafter provide up to 75 percent of any operating deficit if the service quality is properly maintained. For a single community the additional state cost would be $49,000 for each year of the program. A reasonable objective would be to initiate three new systems in a five-year program, selecting one demonstration city

each from the low, middle, and high population range of the candidate communities. The average annual cost of a staged program of three projects would be $95,000.

Because of the large number of major, rural government locations (county seats) not having access to any intercity carrier service and because of the importance of providing energy efficient transportation service, the PTD should take an active role in evaluating, coordinating, and, where necessary improving intercity bus service. The possible projects to be undertaken were discussed earlier. It is recommended that this effort be supported by an annual allotment of $500,000.

Elderly, handicapped, rural demonstrations, and other demonstration projects should be evaluated by the PTD. The minimal effort recommended for Program Level 3 is the provision of a subsidy to local operators who reduce the off-peak elderly fare as specified by the federal Section 5 program. The local data are insufficient to determine exactly the portion of revenues affected by this program. Assuming five percent of revenues are affected, and that the state assumes the resulting portion of the deficit that is not covered by federal assistance, the annual cost would be $90,000. Extending the same option to small urban areas would increase the cost by $25,000. An additional $140,000 is recommended for other miscellaneous service demonstrations.

A summary of recommended program elements in Program Level 3 is as follows:

Technical assistance	$250,000
Capital and operating assistance for existing services	2,800,000
Transit service initiation on communities over 20,000	250,000
Demand-responsive demonstrations	95,000
Intercity bus transportation	500,000
Elderly fare subsidies	115,000
Other demonstrations	140,000
Annual total	$4,150,000

Program Level 4

The programs suggested in Levels 1 through 3 have recommended cost sharing levels lower than those of many other states. Rural transit service assistance has also been limited because many other social service programs provide financial assistance.

Existing rural systems are frequently used only by special groups and not by the general public. Program Level 4 considers a more liberal cost sharing position, encourages rural transit programs which are open to all citizens, and provides additional demonstration program and intercity bus program funds.

Program Level 4 suggests that the state assumes two-thirds of non-federal costs, except for demonstration grants and operating assistance in small urban areas, which are continued at a 75-25 split. The additional cost for the elements in Level 3 would be approximately

$600,000.

Current expenditures for rural transit programs are not well defined. Approximately two-thirds of the counties now have or are planning some type of rural system. The PTD should coordinate the social agency programs and, where necessary, negotiate contracts to provide funds for systems which cannot be funded from other sources. Suggested funding efforts to establish service throughout the state should be limited to an additional $500,000.

Intercity bus programs are eligible for federal assistance, but local communities may not be willing to contribute independently to systems which clearly provide benefits to others outside the community as well as to the private carriers. Therefore, the state may have to assume a much greater responsibility than that suggested previously. Program 4 recommends an additional $500,000 effort to advocate and develop special intercity services.

Finally, the funding levels suggested for urban programs have been limited to improvements suggested in the five-year capital needs program of the individual cities. In some cases these programs are sufficient to replace deteriorating equipment and buildings but do not include sufficient funds to upgrade and extend a quality service throughout the urbanized area. For Program 4 it is recommended that an additional $500,000 be made available for service improvements and extension in communities now providing a basic service.

The total Program 4 budget then is:

Program 3 Level	$4,150,000
Increase percentage of cost assumed by state	600,000
Rural transit program	500,000
Intercity bus funds	500,000
Transit service extensions	500,000
Total	$6,250,000

Allocation of Transit Assistance Funds

A critical issue for the implementation of state assistance programs as outlined here is the distribution of funds among eligible transit agencies to attain equity and effective utilization of monies. The most serious conflicts occur in states which have both capital intensive rail systems and bus operations to develop. Serious policy issues need to be addressed here to determine priorities. In Iowa, bus operations will be the single focus, but when the available funds are less than the requests for same, the allocation issue must still be addressed. This section summarizes and evaluates the experience of other states with their allocation procedures.

By their nature, demonstration grants impose the least difficulty for allocation because there usually is no commitment to provide everyone with a fair share. Rather, the available funds can be distributed on a first-come, first served basis to the community(ies) developing proposals which best strive for the objectives of the demonstration program.

Capital assistance programs are potentially more difficult to administer, but interviewees in this study did not dwell on these programs during visits to other states. A wide range of allocation methods are used. The philosophy of at least one state is to distribute to as many localities as possible without regard to a "fair share" distribution as might be determined by population or transit service formulas. Approval of a capital grant request in this state, and in some others, is based strictly on receiving approval from the federal Urban Mass Transit Administration (UMTA). If UMTA approves a project the state will share the local costs on the basis of a fixed cost sharing formula or by other variable agreements.

A more comprehensive initial evaluation is given in other states. A prime example is in New York where all assistance requests are first evaluated by the state DOT to assure that the program is in compliance with the State Master Plan. They have not yet had to turn away an acceptable program submitted due to lack of funds, so an area allocation procedure has not been an issue.

Due to the limited experience with operating subsidies at the state and federal level, this form of assistance request has generated the most concern by funding agencies. Distribution procedures have been classified into the following categories by the research staff: purchase of service agreements, formula allocations, tax revenue generation base, and first come-first served. The remainder of this section will describe desirable characteristics of a distribution methodology, discuss the experience of states using the various

methodologies, and evaluate the procedures used to arrive at recommendations for Iowa.

Desirable Characteristics of a Distribution Methodology

A desirable allocation methodology would

- Maximize the effectiveness of funds expended, i.e., provide the funding agency with the flexibility to evaluate the service quality provided by the operator.
- Be equitable to all agencies concerned.
- Allow the disbursing agency to financially plan disbursements throughout the fiscal year.
- Provide the recipients with sufficient information about probable funds available to their agency so they can effectively develop a workable operating plan.

Criteria that are used to evaluate the various allocation methodologies are presented below.

Allocation Methodologies

Purchase of service agreements. Purchase of service agreements are negotiated contracts between the state and local transit operators which describe the services to be provided and set forth the payment schedule for such services. New Jersey has perhaps the most extensive experience with contract agreements since they have used service contracts for rail service since 1961 and for bus service since 1969. These contracts may provide up to 100 percent funding of the operating deficit. The total amount available for distribution is determined by legislative appropriation based on the deficits of individual

operations in the previous year.

The use of purchase of service agreements is beneficial to the state in that it allows the state to control the quality of service. The state approves routes, frequencies, and on-time reliability. In some cases the equipment to be used may also be controlled to assure that equipment meets minimum safety standards.

The purchase of service agreement is also desirable from the operator's viewpoint in that the agency knows that deficits accrued under the contract agreement will be paid by the state or local government. The operator can therefore continue to provide a quality service in the face of increased costs without increasing fares or depleting cash or capital reserves. The operator has, in fact, an incentive to provide quality service because the contract may limit or withhold payments to operators falling below established performance standards. The program is not without problems, however. While the service contract commits the state to cover contracted costs, the escalation of operating expenses has outstripped the fixed amount made available by legislative appropriation. The Department of Transportation had anticipated a cost escalation but could not initiate changes in the contracts or influence the legislature sufficiently to allocate adequate funds except through "emergency" appropriations. For example, in February 1975 the legislature had to allot an additional $26 million to meet the state's obligations through the fiscal year.

Pennsylvania also distributes operating funds through purchase of service agreements based on performance guidelines, although initially the intent was to allocate strictly on the basis of $0.035 per revenue

mile of service. The Pennsylvania approach has two principal variations from the New Jersey concept. First, the Commonwealth's philosophy is that the local governments should always share the cost in any capital or operating assistance program. Second, the Commonwealth, although basically funding two-thirds of the operating deficit, actually restricts the total payment to one-half of the fare box revenues. The effect of this allocation policy is to assure that the operating agency is achieving a specified cost-effectiveness position. The transit operator has an incentive to operate a service which produces fare box revenues at least equal to four-sevenths of the operating expenses. Lower revenue production results in a reduced cost sharing level from the Commonwealth.

To help assure that the agencies provide a basic service quality, the Pennsylvania Mass Transit Bureau has established several standards and guidelines. Elements considered include headways, area coverage, on-time reliability, fares, and marketing programs. A research contract is currently underway to develop and evaluate several efficiency standards. When these are finalized the Bureau may withhold portions of the financial assistance as leverage to assure compliance with the standards. To date, however, the existing arrangements have not caused major difficulties to the Bureau since appropriated funds have been insufficient to permit undertaking a more ambitious program.

Formula allocations. Michigan and New York are two major states which use a formula allocation based on population or service characteristics. The Michigan formula distributes funds with a two factor formula: one-half of the distribution factor is based on urban

population as a percentage of the statewide urban population and one-half is based on revenue miles as a percentage of statewide revenue miles. An additional constraint is that the operating subsidies are not to exceed 33 percent of the operating cost.

New York actually uses two forms of allocations. The first is a legislative appropriation to the five regional public transportation agencies. This accounts for $94.1 million of the $100 million program. The remaining funds have been allocated by a three-factor formula with a requirement for matching funds from counties or cities. This formula, until recently, allocated $0.014 per passenger and $0.09 per vehicle mile plus $0.40 per resident of the service area of a system operated by a municipality.

The general advantages and disadvantages of these allocation methodologies will be discussed, but first some of the specific problems and proposed solutions of the New York DOT are presented below:

- Transit operators not in a regional authority had to compete for too small a portion of the total funds. If the total distribution were based on a formula, these operators would have received larger sums while four of the five regional authorities would have received less. The DOT recommended that all funds be allocated by formula. An incentive payment for increased ridership during the year was also recommended.
- Public and private operators were not subsidized equally because of the additional population factor in the formula. The recommendation was to treat both operators equally. (The urban population factor was subsequently dropped.)

- Intercity carriers providing local service in several counties found it time consuming and difficult to obtain the 50-50 matching funds from all counties, thus limiting their ability to obtain state funds. The recommendation was to continue to require 50-50 matching funds but to make the matching share negotiable between local counties and the operator.
- Consideration was also given to service and safety standards with the recommendation that standards should not be imposed at this time as a condition for receiving operating assistance.

Generally, formula allocations can inherently incorporate service incentives. They also can provide the transit operator with a sufficiently accurate estimate of funds available so an operational program can be planned, assuming of course that the total state appropriation is reasonably stable. The state likewise has a mechanism by which all operators can receive a share of the funds. An across the board allocation, however, does not guarantee that an equitable distribution has been attained. In general, costs per revenue mile are higher in the larger urban areas, thus suggesting that an allocation based on revenue miles of travel should provide greater per-mile subsidies to larger cities. On the other hand, the larger urban areas tend to generate greater ridership and revenues per revenue mile and therefore may require a lower overall subsidy per passenger. A two-factor formula will tend to weight these factors and average out these effects, but a comprehensive analysis may be necessary to determine if an equitable distribution has, in fact, been attained.

Another consideration in equity is distribution to operators providing

services which may be justified more from the social viewpoint than from an economic efficiency view. Due to the nature of the service, ridership and efficiency levels may be low and a strict formula allocation would tend to penalize this operation.

Finally, the ability to develop even short range plans may be constrained due to uncertainties in funding from year to year. The variability of legislative appropriations provides the same uncertainty presented earlier. In addition, the actual formula may be variable because new services or new funding levels impose a need to adjust the weights on the parameters so all funds are distributed.

Revenue generating base of transit jurisdiction. California, Illinois, and Washington each reported that state transit funds were apportioned on the basis of taxing levels within the subject transit district. These programs are discussed in the preceding chapter, and only a few comments on program operations are given here.

In California, monies returned to the counties are to be used according to established priorities: a) administration, b) planning, c) facilities for exclusive use by pedestrians and bicycles, d) support of public transportation, and e) support of other transportation needs. The counties are not closely controlled as to the actual usage, although transit agencies are required to report basic operating characteristics to the State DOT. Within counties, allocations are based on population. In 1974, approximately 61 percent of this transportation fund was used for transit purposes.

Illinois respondents did not indicate any major difficulties with their downstate operating assistance program, but the program has been

available only since August 1974. The Division of Public Transportation has extensive reporting and auditing requirements to assure appropriate utilization of funds. Although sales tax funds from a district are set aside for transit operating assistance, these funds are not automatically turned over to the district. Instead the operating agency must develop an appropriate operating plan conforming to their role in the city's transportation plan and must generate the necessary local matching funds.

Washington did not cite any specific problems distributing funds back to the local levels. It was noted, however, that none of the cities actually received the full amount of eligible funds because of insufficient local matching funds.

The primary advantage of this allocation methodology over the other concepts is that both the state and the operating agency can better estimate the annual funds which potentially will be involved because the base for prediction (sales tax or motor vehicle assessed valuation) may be more predictable than are annual legislative appropriations. Further, the individual agency is not competing against every other operation for a piece of a fixed apportionment but can instead plan on having available revenues based on the economic growth of the area. In this program the state can still establish levels of service guidelines, performance standards, and the operational reports necessary to evaluate service quality.

This allocation procedure does not, of course, guarantee satisfaction of every community's needs even though there is no direct competition for a fixed fund. The legislation establishing such a program may be expected to establish funding at an adequate level. However, if an area is economically depressed relative to other areas, or has higher transit

needs relative to its revenue generating potential, the transit operator may find that both assignable state funds and local matching funds are inadequate to meet transit needs. For such cases, either special demonstration grants may have to be provided to encourage development of a basic level of service, or different return rates established for the different districts.

First come-first served allocations. The first come-first served concept does not establish any pre-determined methodology. The first agencies to submit assistance requests are given funds according to their established needs. The concept appears to be an interim process for states that are initiating relatively small but expanding assistance programs. Minnesota and Wisconsin are two midwest states currently using this approach. In Wisconsin the concept is used in conjunction with service contracts. Each system is evaluated and the subsidy level is determined for each agency through contract negotiation. The transit division requires the operators to provide system characteristics and a management plan. Both Minnesota and Wisconsin monitor fund expenditures by requiring state audits of the operations.

Allocation of funds on a first come-first served basis is deficient due to the possible inequity in distribution and the inability to base plans on an assumed funding level. Although management of this distribution process may be satisfactory initially, the pressures from new operating systems suggest the need to develop more defined procedures.

Recommendations

Obviously none of the allocation procedures discussed will always satisfy the criteria used here to evaluate the current procedures.

However, based on the information cited and the feasibility for implementation in Iowa, a framework for allocating operating assistance is recommended.

It is recommended that Iowa develop a formula allocation procedure. The formula should serve as a guideline for distribution with the PTD allowing full allotment only in those cases where the transit operator is providing a basic service quality. As indicated in Program Level 2, the local jurisdiction should always assume a portion of any operating deficit. If a metropolitan area receives federal assistance, the state should assume a maximum of 50 percent of the non-federal share. Small urban areas not currently receiving federal assistance (although pending federal legislation would provide funds for operating assistance in small urban areas) may receive up to 75 percent of any operating deficit. The PTD is encouraged to develop the necessary additional performance standards to judge the service quality.

The parameters considered for inclusion in the formula were revenue miles, passengers carried, and population in the service area. However, passengers carried are more readily measured than population variables, and use of this parameter affords an incentive for operating agencies to increase ridership. The disadvantage of this variable was indicated previously. In some instances a transit operation may have low ridership while having a high value because it serves an important social welfare function. The low ridership would tend to restrict this operator's ability to attract these operating funds. Balancing this concern is the fact that other funding sources are often available for an

operation which serves such special needs.

The recommended parameters for use in the allocation are therefore revenue miles of service and passengers carried. The operating agency is thereby encouraged to extend service area or hours and generate new ridership.

Associated with the distribution of funds must be a concomitant requirement for the operating agency to provide the necessary information to evaluate program quality and to justify operating proposals. The next section recommends a minimum reporting system which should be sought to meet state and federal grant application requirements.

Reporting Requirements for Transit Operators

When the local, state and federal governments share the cost of transit development, operators often are placed in a position of supplying these bodies with data sufficient to verify that the public funds are spent as intended. Unfortunately, these reporting requirements are often viewed only as a necessary evil to satisfy legislative requirements rather than as a comprehensive tool for evaluating program effectiveness.

A data system should be first of all a means to evaluate the degree to which a transit system is meeting the basic objectives of that system. Secondly, an adequate system should provide sufficient detail to indicate to management the most effective changes, such as route, fare, or schedule changes, which should be implemented to achieve the service quality desired for the community. A service evaluation effort sufficient to meet the above needs would simultaneously provide sufficient data for

government review.

Data reporting requirements suggested in this section are intended to develop information useful to the operator and the Public Transit Division. These data would provide the Division with information for evaluating assistance requests, preparing applications for federal assistance, and providing technical assistance to local operators. The reporting schedules suggested herein do not imply that the local operator will be recording all the detail which may be necessary to answer questions posed by mayors, city councils, county boards, or local citizens. Nor does the reporting effort constitute a complete picture to the Division regarding performance factors which may eventually be desired. It is anticipated that as the Division acquires sufficient data bases and evaluates program performances, operating guidelines will be established and the reporting efforts refined.

Federal Reporting Requirements

Reporting requirements for transit operators receiving assistance through the Federal Urban Mass Transportation Act will eventually be provided by the Secretary of Transportation as prescribed by the Act as amended (Sec. 15):

> "The Secretary shall by January 10, 1977, develop, test and prescribe a reporting system to accumulate public mass transportation financial and operating information by uniform categories and a uniform system of accounts and records. Such systems shall be designed to assist in meeting the need of individual public mass transportation systems, Federal, State and local governments, and the public for information on which to base planning for public transportation services and shall contain information appropriate to assist in the making of public sector investment decisions at all levels of government..."

The Act further specifies that the uniform reporting and accounting procedures must be implemented by July 1, 1978, for agencies to be eligible for financial assistance.

Until such time as the Secretary provides the uniform reporting procedures, operators will be free to use current systems. Interim guidelines, however, indicate that applicants for Section 5 assistance must submit "Statements of Revenues and Expenses" and a "Statement of Changes in Financial Position" which indicate projected or actual dollar amounts for the local fiscal year for which assistance is sought, and show actual amounts for the two immediately preceding local fiscal years.

These statements must specify the results of operations and the source and application of federal, state, and local funds as well as other transportation revenues. Metropolitan agencies requesting funds for improved quality of service must be prepared to provide documentation of such factors as projected changes in ridership, revenues, and expenses.

Iowa Report System

Based on observations in Iowa and other states, it is apparent that transit operators are seldom in a position to provide the degree of detail suggested above. Often the only reports required are quarterly or annual summaries to the Public Service Commission regulating the service. The data are highly aggregated and are of little value for planning or program development.

Some states indicated that operators were also required to submit reports to the State DOT. In at least one such state, however, the reporting quality was still so crude that the administrators could not evaluate the effectiveness of their investments.

The experience of other states has been used to formulate recommendations for Iowa. Inputs from California, Illinois, Pennsylvania, and Wisconsin were of particular value. The reporting concepts discussed here do not address financial accounting details; rather, the emphasis is on obtaining operating and cost statistics for transit operations analysis. Two major reporting efforts are recommended initially. The first provides documentation of the current service and financial position. The second basically provides an annual update and details service changes anticipated by management.

Existing Service Characteristics and Capital Inventory Report

A basic requirement for transit agencies seeking federal operating assistance is that the support provided by state and local government must be maintained at a level at least as high as that which occurred prior to initiation of the federal program. The initial documentation therefore must specify the details of the current program and the financial details for the two previous years. Although not all agencies are currently eligible for these funds, all agencies which would be requesting state funds should also file similar status reports with the Public Transit Division.

The current operations report, referred to here as Schedule 1, "Service Characteristics and Capital Inventory Report," appears in Appendix F. The basic elements of the report include operating agency information, regular and special route service descriptions, fare structure, revenue contracts, expense contracts, annual operating expenditures and a revenue equipment inventory. The form outline indicates

the specific elements to be considered in each group. Current route maps and schedules should accompany the basic report and become a part of the permanent record of the PTD.

The level of detail on individual route ridership and revenue recommended here exceeds that generally required in other states at this time. This detail is recommended, however, so transit management can analyze potential impacts of micro-system changes such as route extensions or deletions, frequency of service on the route, and extended service hours. The more traditional, aggregate record-keeping system which reports total revenue, total miles of service, and bus hours of utilization, is useful for comparison purposes but is of limited value for program evaluation and development.

It is recognized that many operators would not currently be in a position to provide this detail, but this should not preclude an effort to increase data availability for future analyses. The increased data collection costs will, in the long run, be compensated for by benefits achieved from improved operating decisions.

PTD Schedule 2 provides a summary of the expenditure and revenue experience included on Schedule 1. It should be pointed out that although depreciation, interest payments, and bond retirement expenses are included on the schedules, these expenses are not eligible operating expenses in the federal program or many other state programs.

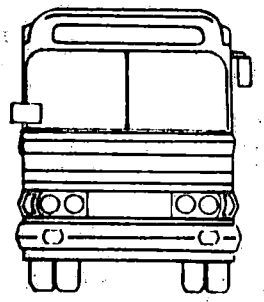
Management and Operational Plan Report

PTD Schedules 1 and 2 summarize current service characteristics and costs necessary to evaluate service quality. A second major reporting effort is necessary to document changes in financial position and to

show plans for service continuation. This documentation is referred to as a Management and Operational Plan Report. The purpose of this effort is to develop and present an annual operation guide which evaluates the current service and proposes a management plan for promoting and marketing the service. The objective is to provide both the funding and operating agencies with an assessment of the impacts of service changes and the necessary funding needed to undertake potential changes. The report also updates the annual operating statistics.

The Management and Operational Plan Report is included in Appendix F as Schedule 3. The information is similar to that incorporated in Schedule 1, but more detailed narratives are required. The operating agencies, particularly in small urban areas, will likely feel too inexperienced to assess the impacts of elements contained in the management plan. The Division staff must be prepared to assist the agencies in designing the data collection effort and analyzing potential impacts.

Schedules 1 through 3 are intended to represent annual data. Administratively, it is desirable to distribute the funds on a quarterly basis. Thus, additional summaries of operating expenses, similar to Schedule 2, should be submitted quarterly as the basis for making quarterly payments to operating agencies.



ORGANIZATION OF PUBLIC TRANSIT DIVISION

The Public Transit Division of the DOT is assigned primary responsibility for implementing Iowa's program of assistance to transit. An objective of this study is to recommend the most appropriate organization structure and performance tasks for the professional-level personnel to be assigned to the Division. Principal input for this portion of the study was afforded by the 22 other states that were visited by members of the study staff.

Performance Tasks

Responsibilities of the professional-level personnel recommended for assignment to the Public Transit Division are indicated by the following performance tasks. Although the task listing below is not identical with that existing in any other state, information most suggestive of the appropriate performance tasks has been afforded by current practices in California, Connecticut, Florida, Georgia, New York, Ohio, Oregon, Tennessee, and Wisconsin.

Director, Public Transit Division

- Direct the work of the Division in the administration of the state's program of transit assistance.
- Advise and assist the DOT Director in formulating and implementing (1) a transit policy for the state, (2) proposals designed to help meet and resolve the transit problems within the state, and (3) programs of financial and technical assistance for development of transit facilities and services.
- Administer funds allotted under the approved budget or any other approved expenditure program, make periodic reviews of programs and budget adherence, and submit reports and proposed budget modifications to the DOT Director.
- Plan the future activities of the Division and recommend annual and biennial programs and budgets to the DOT Director.
- Continually study the programs, policies, and methods of the Division operation in an effort to improve efficiency and effectiveness.
- Maintain liaison with the Planning and Research Division in order to provide advice and assistance on transit aspects of other DOT planning efforts.
- Serve as the "designated representative" for the state in respect to federal programs of transit assistance requiring such designation and otherwise to be primarily responsible for the state role in administering federal programs of assistance to transit operations in Iowa.

Tasks for other professional-level employees of the DOT who are concerned with administration of a state transit program fall generally in the following areas:

- Grant Assistance
- Operations
- Technical Studies
- Project Development
- Marketing and Management

Performance tasks for each of these areas of responsibility are described below. These should be performed within the Public Transit Division in cooperation, where appropriate, with personnel from other DOT Divisions and the field Districts.

Grant Assistance

- Recommend a state transit assistance program for presentation to the General Assembly and establish methods and criteria for implementing, monitoring, and improving a state program.
- Prepare and negotiate appropriate agreements with eligible applicants and monitor project performance under a state transit assistance program.
- Develop and recommend application procedures, forms, guidelines, and manuals for use under a state transit assistance program.
- Maintain control records of all grant agreements, audit reports, schedules of payment, and performance evaluations for projects

carried out under a state transit assistance program.

- Maintain liaison with federal agencies providing financial aid to transit systems and assist local agencies and governments in making applications for federal aid.
- Assist in the administration of federal capital grant programs, technical planning grants, programs for operating assistance, and programs for supplying transportation services to the elderly and handicapped, to include preparation and processing of applications, execution of third party contracts, and processing of funds.

Operations

- Maintain liaison with affected state, regional, and local agencies and with national transit organizations in relation to transit problems and programs.
- Develop and recommend operational procedures for collecting and maintaining essential records and files of operating data from transit services in the state and prepare annual statistical summaries of transit operations.
- Assist local officials in the preparation and updating of five-year transit development programs and monitor such plans to detect the strengths and weaknesses of various operating procedures.
- Prepare needs estimates for transit and assume responsibility for coordinating those activities necessary to complete the transit portions of state and national transportation needs studies.
- Maintain inventories of transit equipment and advise local officials in ways to upgrade systems from an equipment standpoint.

- Provide direct technical assistance to small urban areas and act in an advisory capacity to urbanized areas and rural areas in improving transit service.
- Prepare short-range operational studies of existing transit systems to define improvements and extensions needed.

Technical Studies

- Carry out technical studies, as directed, that will assist in the enhancement of transit use and reduction of automobile use and the achievement of DOT goals and objectives. Specific examples might include, but are not limited to, the following:

  Carpooling

  Para-transit (jitney, dial-a-ride, etc.)

  School bus use

  Intercity bus schedule coordination

  Special programs for the elderly and handicapped

  Rural transit programs

  Bus preferential treatment on streets and freeways

  Signal preempt systems

  Fringe parking programs

  Fare assistance programs

  No-fare or low-fare programs

  Scheduling techniques

  Improved auxiliary facilities

  Environmental mitigation studies

  Effects of energy shortages

  Transit assistance to small cities

- Evaluate and disseminate findings resulting from technical studies, particularly to regional and local officials responsible for implementing transit programs, and assist such officials in the establishment of similar programs at the regional or local level.
- Maintain an inventory of transit system technology and carry out analyses to determine local applicability of such technology and prepare informational papers for advanced systems and technology.
- Perform ridership analyses and economic evaluation of transit services in the state.

Project Development

- Prepare and update the transit elements of a statewide transportation plan in coordination with the Planning and Research Division.
- Initiate and administer transit demonstration projects sponsored by the DOT and make recommendations for state and federal funding of local demonstration projects that test the feasibility of new transit equipment or operating methods.
- Monitor the progress of and evaluate the results of transit planning and demonstration grants with particular attention to their statewide applicability and potential integration into existing transit systems and services.
- Encourage scheduled and charter intercity passenger carriers to undertake new services which are consistent with the statewide transportation plan or with DOT program objectives.
- Effect coordination with appropriate departments in adjacent states relative to transit improvement projects having interstate implications.

- Develop programs for more effective coordination between intercity carriers and local transit operators.

Marketing and Management

- Assist in the evaluation of organizational structure, operating techniques, promotional efforts, and other management practices of transit systems in the state and make recommendations for improvements that will enhance the operating efficiencies of transit properties.
- Conduct meetings and seminars with local community officials and transit operators to provide training in the management and marketing of local transit systems.
- Prepare and disseminate guidelines for improved passenger information systems to enhance system accessibility and utilization.
- Conduct transit market segmentation studies and apply the findings of such studies.
- Describe and interpret DOT transit policies and programs to local community officials and groups.
- Serve as statewide clearinghouse for transit information needs and assist the Office of Information in the preparation of newsletters and press releases.

Personnel

State responsibilities for transit vary widely. At one extreme, a state may ignore the presence of urban and rural transit and play essentially no role in regard to these services. Some other states, however, are extremely

active in fostering and supporting transit services with responsibilities including operation of specific properties, development and design of hardware, marketing of transit services, technical planning assistance, and financial support for capital acquisitions and operating assistance.

The size of a state's staff varies in accordance with its responsibilities and other factors. Visits to other states led to some subjective conclusions by study personnel concerning the size of the agency subdivisions responsible for administering transit programs. Some clearly were larger than seemed appropriate for their states' transit roles, whereas others appeared to have a staff too small to carry out effectively their assigned responsibilities.

On the basis that the average experience of other states could provide input useful to suggest the size of a Public Transit Division, a statistical analysis of such data was undertaken. Data in suitable form were available from 19 other states having Departments of Transportation. These were analyzed to establish a relationship between the number of professional-level personnel assigned to the transit function and parameters such as population and the size of a state program of financial assistance. Regression (least-squares) analysis was used for this purpose.

As a preliminary step, three different population variables were tested for correlation with number of personnel. These were as follows:

- Total population of state
- Total urban population of state
- Total metropolitan area population of state.

In each case, 1970 census figures were used. This analysis indicated that

the strongest correlation is afforded by use of a state's urban population.

The following expression was subsequently developed:

$$Y = 3.7 + 1.6X_1 + 0.057X_2$$

where

Y = number of professional-level personnel in Public Transit Division or equivalent

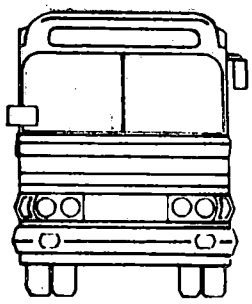
X_1 = 1970 urban population of state in millions

X_2 = size of financial assistance program in fiscal year 1974 in millions of dollars

It may be noted that the effect of size of financial program is relatively insignificant unless the annual program is substantially in excess of $10 million. The coefficient of determination (R^2) for this expression is 0.57 indicating that about 57 percent of the variation in division size may be accounted for by use of the above equation for the available data sample. For Iowa (1970 urban population = 1.62 million), the expression indicates a need for six professional-level persons. This number, it is believed, will permit the Public Transit Division to adequately perform the tasks listed above and is therefore recommended as the appropriate ultimate staffing level.

It is further recommended that descriptions for these positions be written so as to avoid the use of job titles such as "Engineer" or "Planner". The title "Transportation Analyst" is used by some states for comparable positions and has the advantage of reflecting the diverse backgrounds of the persons filling these positions. Few persons are suitably educated from contemporary university programs to assume responsible positions in the administration of transit programs. As a

consequence, those persons filling such positions in most other states were found to have been educated in many different disciplines. The capability of the organization to carry out such functions with the best qualified persons should not be unduly constrained by a necessity to adhere to an arbitrary and probably irrelevant requirement for a particular educational background.



ACKNOWLEDGEMENT

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The authors of the report wish to acknowledge the assistance of Dr. K. A. Brewer as a consultant to the project staff. Valuable assistance was also rendered by the following Undergraduate Research Assistants: Krista Brown, Sheri Lutz, and Linda Siebecker.

APPENDIX A

QUESTIONNAIRES ADDRESSED TO OTHER STATES

ERI Form No. 818-1

QUESTIONNAIRE

GOVERNORS

State of _____

1. Name of the state agency with primary responsibility for public transportation within your state: _____

2. A more detailed questionnaire will soon be sent concerning the structure of the public transportation assistance program in your state. This can best be completed by the person most directly responsible for administration of the public transportation functions of your state government. To whom should it be directed?

   Name _____ Title _____

   Address _____

   City and State _____ Zip _____

3. Are there other state agencies with some responsibilities for or, in supportive relationship with public transportation? ☐ Yes ☐ No

   (If yes, specify name and function) _____

   _____

4. What relative importance do you ascribe to your state agency in terms of local and/or regional transportation programs.

   Local and/or regional systems are very dependent on us. ☐

   We provide the assistance they ask for. ☐

   We only channel requests for funds. ☐

   Very little interaction occurs. ☐

5. Would you prefer that the role played by the state, compared to the current role:

   a. in administration for public transportation:

      be enlarged ☐ remain the same ☐ be decreased ☐

   b. in financing public transportation:

      be enlarged ☐ remain the same ☐ be decreased ☐

   Comments _____

   _____

ERI Form No. 818-1

6. Comments or expansion upon answers to questions above:

_____

_____

_____

_____

7. Questionnaire completed by:

Name _____ Title _____

Address _____

City and State _____ Zip _____

When completed, return to: Transportation Engineering
382 Town Engineering Building
Iowa State University
Ames, Iowa 50010

Note: If you have any questions, call R. L. Carstens at 515-294-6778 and ask for assistance relative to ERI Project 818.

ERI Form No. 818-2

QUESTIONNAIRE

PUBLIC TRANSPORTATION ADMINISTRATORS

State of _____

1. Name of your organization _____

2. Is your organization part of a state department of transportation? ☐ Yes ☐ No

3. If not, what state organization or agency is it part of? _____

4. Please explain your location within the structure of the larger organization.

_____

5. How many employees are in the organizational subdivision specifically responsible for public transportation? _____ professional _____ technical _____ clerical

6. Do you provide direct assistance to urban/regional public transportation? ☐ Yes ☐ No
(If no, proceed to question 39.) (If yes, please answer the following questions.)

Please check the types of assistance you provide.

☐ 7. Help to formulate a public/mass transportation policy?

☐ 8. Participate in the local transportation planning process.

☐ 9. Coordinate with neighboring states when problems of overlapping services occur.

☐ 10. Participate in and/or provide funds for research.

☐ 11. Provide technical assistance to urban/regional public transportation.

☐ 12. Review applications for federal assistance, recommend approval or disapproval, and administer funds.

☐ 13. Administer programs of capital grants.

☐ 14. Purchase or lease rolling stock.

☐ 15. Operate public transportation services.

☐ 16. Have right of access to books and/or papers of any person providing public transportation services.

☐ 17. Write an annual report.

☐ 18. Provide financial support from state funds.

☐ 19. Other (specify) _____

_____

If you checked question #18, please proceed to question 20. Otherwise go to question 39.

Do Not Participate	Do Participate: Private Operators	Do Participate: Public Operators		
☐	☐	☐	20.	Assistance for capital improvements? Last FY? $_____ Est. average annual amount next 2 FYs? $_____ Comments _____
☐	☐	☐	21.	Assistance for operations? Last FY? $_____ Est. average annual amount next 2 FYs? $_____ Comments _____
☐	☐	☐	22.	Contribution toward bond debt service? Last FY? $_____ Est. average annual amount next 2 FYs? $_____ Comments _____

ERI Form No. 818-2

Do Not Participate	Do Participate: Private Operators	Do Participate: Public Operators		
☐	☐	☐	23.	Grants for technical assistance (planning and/or design)? Last FY? $_____ Est. average annual amount next 2 FYs? $_____ Comments _____
☐	☐	☐	24.	Unrestricted grants? Last FY? $_____ Est. average annual amount next 2 FYs? $_____ Comments _____
☐	☐	☐	25.	Other? (specify) _____ Last FY? $_____ Est. average annual amount next 2 FYs? $_____ Comments _____

We would be interested in the source(s) you draw from for these funds. Please check the source(s) you use.

☐ 26. Appropriation from general funds.

☐ 27. Bonds whose sale is authorized by state legislature. (If checked, please indicate the source(s) of funds used to retire the bonds.) _____

☐ 28. Special fund dedicated for public transportation, and replenished by tax revenues, as specified below.

If you checked #28, kindly indicate the revenue source(s) you have utilized (aside from federal aid) for providing direct financial assistance to urban/regional public transportation in your state. If not, proceed to question 39.

29. Sales tax: ☐ used ☐ not used-ever ☐ not used currently ☐ authorized, but not used

If used: amount last FY? $_____ Est. average annual amount next 2 FYs? $_____

	Rate (%)
☐ Municipal	_____
☐ County	_____
☐ Regional	_____
☐ Statewide	_____

Items taxed: _____

Dedicated? ☐ (If so, for what use?) _____

30. Property tax: ☐ used ☐ not used-ever ☐ not used currently ☐ authorized, but not used

If used: amount last FY? $_____ Est. average annual amount next 2 FYs? $_____

☐ Real Property ☐ Personal Property

☐ Municipal
☐ County
☐ Regional
☐ Statewide
☐ Special benefit district

Dedicated? ☐ (If so, for what use?) _____

ERI Form No. 818-2

31. Motor Fuel Tax: ☐ used ☐ not used-ever
☐ not used currently ☐ authorized, but not used

If used: amount last FY? $_____ Est. average annual amount next 2 FYs? $_____

	Rate/gal.
☐ Municipal	_____¢
☐ County	_____¢
☐ Regional	_____¢
☐ Statewide	_____¢

Dedicated? ☐ (If so, for what use?) _____

32. Wheelage tax: ☐ used ☐ not used-ever
☐ not used currently ☐ authorized, but not used

If used: amount last FY? $_____ Est. average annual amount next 2 FYs? $_____

	Rate ($)
☐ Municipal	_____
☐ County	_____
☐ Regional	_____
☐ Statewide	_____

Dedicated? ☐ (If so, for what use?) _____

33. Motor vehicle registration: ☐ used ☐ not used-ever
☐ not used currently ☐ authorized, but not used

If used: amount last FY? $_____ Est. average annual amount next 2 FYs? $_____

	Rate
☐ Municipal	_____
☐ County	_____
☐ Regional	_____
☐ Statewide	_____

Dedicated? ☐ (If so, for what use?) _____

34. Drivers license fees: ☐ used ☐ not used-ever
☐ not used currently ☐ authorized, but not used

If used: amount last FY? $_____ Est. average annual amount next 2 FYs? $_____

	Rate
☐ Municipal	_____
☐ County	_____
☐ Regional	_____
☐ Statewide	_____

Dedicated? ☐ (If so, for what use?) _____

35. Cigarette tax: ☐ used ☐ not used-ever
☐ not used currently ☐ authorized, but not used

If used: amount last FY? $_____ Est. average annual amount next 2 FYs? $_____

Rate/carton

☐ Municipal _____
☐ County _____
☐ Regional _____
☐ Statewide _____

Dedicated? ☐ (If so, for what use?) _____

There are a number of revenue sources which are not commonly used-but may be used by your state. Among these are: business license tax, business excise tax, business income tax, payroll tax, occupation tax, public utilities tax, tax on parking lot receipts, etc. If your state uses any of these revenue sources or any others not already covered, please note by completing the following:

36. _____ tax: ☐ used ☐ not used-ever
☐ not used currently ☐ authorized, but not used

Amount last FY? $_____ Est. average annual amount next 2 FYs? $_____

Rate

☐ Municipal _____
☐ County _____
☐ Regional _____
☐ Statewide _____
☐ Special benefit districts _____

Dedicated? ☐ (If so, for what use?) _____

Comments _____

37. _____ tax: ☐ used ☐ not used-ever
☐ not used currently ☐ authorized, but not used

Amount last FY? $_____ Est. average annual amount next 2 FYs? $_____

Rate

☐ Municipal _____
☐ County _____
☐ Regional _____
☐ Statewide _____
☐ Special benefit districts _____

Dedicated? ☐ (If so, for what use?) _____

Comments _____

38. _____ tax: ☐ used ☐ not used-ever
☐ not used currently ☐ authorized, but not used

Amount last FY? $_____ Est. average annual amount next 2 FYs? $_____

	Rate
☐ Municipal	_____
☐ County	_____
☐ Regional	_____
☐ Statewide	_____
☐ Special benefit districts	_____

Dedicated? ☐ (If so, for what use?) _____

Comments _____

Indirect assistance is often provided for local and regional public transportation systems. Some of the more commonly used forms are listed below. Please check those forms utilized by your state and add any information you deem significant (examples: exempt from a portion only, size limitations, etc.).

Private Operator	Public Operator		
☐	☐	39.	Exempt from local property tax. (☐ Real ☐ Personal) _____
☐	☐	40.	Exempt from motor fuel tax _____
☐	☐	41.	Tax exempt bonds _____
☐	☐	42.	Exempt from state income tax _____
☐	☐	43.	Exempt from local income tax _____
☐	☐	44.	Exempt from motor vehicle registration fees _____
☐	☐	45.	Fares exempt from sales/use tax _____
☐	☐	46.	Exempt from special assessments _____
☐	☐	47.	Exempt from excise taxes _____
☐	☐	48.	Lease of operating equipment at less than cost _____
☐	☐	49.	Exemption from payment of certain franchise and/or license fees _____
☐	☐	50.	Other (specify) _____

51. Does your state have legislation providing for organization of a transit district? ☐ Yes ☐ No

If yes, please answer next questions. If no, go to question 56.

52. Does it have authority to issue bonds? ☐ Yes ☐ No

a. Revenue? ☐ Yes ☐ No

b. General obligation? ☐ Yes ☐ No

c. Limit of indebtedness? ☐ Yes ☐ No Explain _____

d. Can bonds be sold pledging the full faith and credit of the state? ☐ Yes ☐ No

53. Does it have authority to acquire, operate, and maintain a public transportation system? ☐ Yes ☐ No

54. Does it have authority to contract with a private corporation to provide passenger service? ☐ Yes ☐ No

55. Does it have authority to lease (as lessor or lessee) equipment necessary to operate a public transportation system? ☐ Yes ☐ No

56. Do you provide assistance to rural public transportation? ☐ Yes ☐ No (If yes, please explain)

_____

_____

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57. It would be most helpful if you could furnish a copy of your organization chart, a copy of your annual report - anything you feel might be of value.

Information enclosed: ☐ Yes ☐ No

Being sent under separate cover: ☐

58. We may find it essential to call on you to obtain additional data by way of a personal interview. Please indicate below the person that we might contact regarding the setting of a time and place for said interview.

Name _____ Phone _____

59. Questionnaire completed by:

Name _____ Title _____

Address _____ City and State _____

Zip _____

When completed, return to: Transportation Engineering
382 Town Engineering Building
Iowa State University
Ames, Iowa 50010

If you have any questions, call R. L. Carstens at 515-294-6778 and ask for assistance relative to ERI Project 818.

THANK YOU FOR YOUR COOPERATION

APPENDIX B

SUMMARY OF OUT-OF-STATE QUESTIONNAIRE RESPONSES

QUESTIONNAIRE TO STATE GOVERNORS

This questionnaire, 818-1 (see Appendix A), was designed for response by the Governor of each state. The Governor, by his response to question 2 of this questionnaire, indicated the person to whom the second questionnaire (a more detailed one) should be sent. These questionnaires were sent to all states except Iowa. Responses were received from all states, though not all were complete. The questionnaire was generally completed by an administrative aid to the Governor or a high level administrator within the state transportation organization. Responses to individual questions are summarized below.

1. Name of state agency with primary responsibility for public transportation in your state:

Department of Transportation	53.1%
Other	42.8%
None (or no reply)	4.1%

3. Are there other state agencies with some responsibilities for or in supportive relationship with public transportation?

Yes	71.4%
No	28.6%

4. What relative importance do you ascribe to your state agency in terms of local and/or regional transportation programs?

Local and/or regional systems are very dependent on us	53.1%
We provide the assistance they ask for	36.8%
We only channel requests for funds	2.0%
Very little interaction occurs	6.1%
No response	2.0%

5. Would you prefer that the role played by the state, compared to the current role:

In administration for public transportation:

Be enlarged	61.2%
Remain the same	18.4%
Be decreased	0 %
Under review	8.2%
No response	12.2%

Comment: All states with a DOT answered "be enlarged", except for those already heavily involved, administratively.

In financing public transportation:

Be enlarged	61.2%
Remain the same	18.4%
Be decreased	2.0%
Under review	6.1%
No response	12.2%

Comment: Five of the nine replying "remain the same" are states with a DOT heavily committed to financial assistance for local transit.

6. Comments or expansion upon answers to previous questions:

- Eight states (California, Minnesota, Mississippi, North Carolina, Oregon, South Carolina, Texas and Vermont) indicated that the role of the state in local transit is under review and that an expansion of state involvement is a likely result. Three states (Minnesota, Mississippi, and Vermont) indicated that this may result in formation of a state DOT.

- Arizona has a new DOT with transit division specified, but not yet funded.
- Three states (Kansas, Nebraska, and North Dakota) are just getting involved. A number of different state agencies are designated to work with local transit (other than state DOT), generally a highway department.
- Connecticut is encouraging more local involvement.
- Alaska's ground transportation is just in its infancy.
- State statutes in Hawaii give responsibility to counties.
- Indiana is moving in the direction of regional agencies, doing planning, development, and operation under some form of state structure.
- Massachusetts was the first state to use federal highway trust fund for transit.
- Michigan is operating a number of demonstration projects, helping transit search for competent transit management personnel, and has proposed a $1.1 billion bond issue for capital improvements.
- New Hampshire has a new agency - a state transportation authority with many needs and no funds.
- Ohio is currently preparing a statewide master plan.
- Oregon is proposing a $12 million financial assistance program.
- Pennsylvania expects financing to decrease slightly as federal operating assistance funds become available.
- Texas provides technical assistance, but has no role in administration or operation of transit systems.
- Utah feels financing is a local responsibility.

- Washington has no one state agency involved with transit, and no desire for further involvement.
- Wisconsin would like to decrease administration, increase technical assistance.

QUESTIONNAIRE TO PUBLIC TRANSPORTATION ADMINISTRATORS

This questionnaire, 818-2 (See Appendix A), was designed for response by the person responsible for the state's functions involving local transit (mailed to the person designated by the Governor). Responses were received from all states, but not all were complete. A number of the signators on this questionnaire had also signed the first one. Responses to individual questions are summarized below.

2. Is your organization part of a state department of transportation?

Yes	53.1%	No	46.9%

3. If not, what state organization or agency is it part of?

Highway Department	10
Separate Department	4
State Planning Agency	1
Governor's Office	4
Regulatory Agency	4

4. How many employees are in the organizational subdivision specifically responsible for public transportation?

Professional -	More than 10	16.3%
	5 to 10	18.4%
	1 to 4	38.8%

		None	14.3%
		No response	12.2%
Technical	-	More than 10	12.2%
		5 to 10	6.1%
		1 to 5	16.3%
		None	53.1%
		No response	12.2%
Clerical	-	More than 10	8.2%
		5 to 10	8.2%
		1 to 5	32.6%
		None	34.7%
		No response	16.3%

6. Do you provide direct assistance to urban/regional public transportation?

Yes 81.% (40) No 18.4% (9)

The following questions were answered by those who answered to the affirmative on the above question. (Yes is indicated for those who checked the box preceding the question.) "Do you" -

7. Help formulate a public/mass transportation policy?

Yes 34

8. Participate in the local transportation planning process?

Yes 38

9. Coordinate with neighboring states when problems of overlapping services occur?

Yes 27

10. Participate in and/or provide funds for research?

Yes 28

11. Provide technical assistance to urban/regional public transportation?

    Yes 36

12. Review applications for federal assistance, recommend approval or disapproval, and administer funds?

    Yes 31

13. Administer programs of capital grants?

    Yes 29

14. Purchase or lease rolling stock?

    Yes 11

15. Operate public transportation services?

    Yes 6

16. Have right of access to books and/or papers of any person providing public transportation services?

    Yes 17

17. Write an annual report?

    Yes 16

18. Provide financial support from state funds?

    Yes 24

19. Other? None

If question 18 was checked (provide financial support from state funds), answers to some of questions 20-38 apply. No expenditures are shown in this summary. For totals, see Table 21 of the text.

20.	Assistance for capital improvements?	Yes 18
	Public operators only	8
	Both public and private	7
	Not specified	3

21.	Assistance for operations?	Yes	14
	Public operators only		4
	Both public and private		8
	Not specified		2
22.	Contribution toward bond debt service?	Yes	7
	Public operators only		2
	Both public and private		3
	Not specified		2
23.	Grants for technical assistance (planning and/or design)?	Yes	19
	Public operators only		9
	Both public and private		5
	Not specified		5
24.	Unrestricted grants?	Yes	1
	(In California, a priority schedule is only restriction)		
25.	Other?	Yes	10
	Reduced fares - elderly		6
	Demonstration grants		7
	Other (promotion, advertising, research)		1

Sources of funds --

26.	Appropriations from general funds?	18 states
27.	Bonds whose sale is authorized by the legislature?	9 states
	(All to be retired by general revenues)	
28.	Special fund dedicated to public transportation, and replenished by tax revenues as specified below.	8 states

Replenished by

29.	State sales tax?	2
30.	Statewide property tax?	0
31.	Motor fuel tax?	6
32.	Wheelage tax?	0
33.	Motor vehicle registration?	6
34.	Drivers license fees?	4
35.	Cigarette tax?	1
36.	State lottery?	1
37.	Income tax?	1
	(New Jersey levies income tax on residents of New York and Pennsylvania who work in New Jersey.)	
38.	Other?	0

Indirect assistance? (Fifteen states did not respond to questions 39-50. Tabulations that follow are concerned only with the 34 states which completed this portion. Note that no response can be intepreted several ways.)

39.	Exempt from property tax?	Public operator only	26
		Both public and private	2
		No response	6
40.	Exempt from motor fuel tax?	Public operator only	21
		Both public and private	6
		No response	7
41.	Tax exempt bonds?	Public operator only	15
		Both public and private	1
		No response	18

42. Exempt from state income tax?	Public operator only	18
	Both public and private	2
	No response	14
43. Exempt from local income tax?	Public operator only	13
	Both public and private	1
	No response	20
44. Exempt from motor vehicle registration fees?		
	Public operator only	17
	Both public and private	5
	No response	12
45. Fares exempt from sales/use tax?	Public operator only	13
	Both public and private	10
	No response	11
46. Exempt from special assessments?	Public operator only	17
	Both public and private	1
	No response	16
47. Exempt from excise taxes?	Public operator only	16
	Both public and private	1
	No response	17
48. Lease of operating equipment at less than cost?		
	Public operator only	3
	Private operator only	1
	Both public and private	2
	No response	28
49. Exemption of payment of certain franchise and/or license fees?		
	Public operator only	14

	Both public and private	5
	No response	15

50. Other? 4

California - weight fees

Kentucky - exempt from state regulatory authority regarding fares, etc.

Montana - municipalities given certificate to operate without prior public hearing

New York - cities and counties may exempt private operator from gross receipts tax

51. Does your state have legislation providing for organization of a transit district?	Yes	30
	No	10
	No response	9

If yes, answer questions 52-55.

52. Does it have authority to issue bonds?	Yes	27
	No	3
a. Revenue?	Yes	23
	No	2
	No response	2
b. General obligation?	Yes	15
	No	8
	No response	4
c. Limit of indebtedness?	Yes	12
	No	12
	No response	3

d. Can bonds be sold pledging the full faith and credit of the state?

Yes	5
No	19
No response	3

53. Does it have authority to acquire, operate, and maintain a public transportation system?

Yes	53.1%
No	10.2%
No response	36.7%

54. Does it have authority to contract with a private corporation to provide passenger service?

Yes	57.1%
No	4.1%
No response	38.8%

55. Does it have authority to lease (as lessor or lessee) equipment necessary to operate a public transportation systems?

Yes	57.1%
No	4.1%
No response	38.8%

56. Do you provide assistance to rural public transportation?

Yes	44.9%
No	30.6%
No response	24.5%

Six states provide technical assistance.

Four states administrate and/or coordinate federal programs.

Denver, Colorado, regional transit provides purchase of service to provide transportation to sparsely populated areas of the district.

In New York, rural systems have the same eligibility as do urban systems.

Tennessee and Georgia are just getting involved in planning for new programs.

Kentucky is developing a pilot demonstration project, assisting in planning and application for a federal grant.

Maryland has one demonstration project, funded 100% by the state.

Michigan is actively funding demonstration projects and grants for cities and counties under 50,000.

APPENDIX C

PERSONS INTERVIEWED:

OUT-OF-STATE VISITS

The following persons were interviewed by project personnel in the course of visits made to other states:

California

Department of Transportation, Mass Transit Division

C. A. Davis, Chief, Planning Liaison Branch

Donald L. Dean, Associate Transportation Engineer, Operating Standards and UMTA Technical Studies Branch

George E. Gray, Chief Deputy

Ken R. Ingram, Chief, Marketing Branch

Dan R. Paige, Chief, Transportation Development Branch

Jim W. Rae, Chief, Operating Standards and UMTA Technical Studies Branch

Connecticut

Department of Transportation

John Gripp, Jr., Principal Accountant, Bureau of Administration

John J. Spaulding, Director of Transit Services, Bureau of Rail and Motor Carrier Services

Delaware

Department of Highways and Transportation, Division of Transportation

Jack Wallace, Director

Florida

Department of Transportation, Division of Mass Transit Operations

W. G. Frauenheim, Administrative Assistant to Director

H. Craig Portz, Administrator, Project Development Section, Bureau of Surface Transit

James M. Rankin, Administrator, Engineering Section, Bureau of Surface Transit

Georgia

Department of Transportation, Division of Planning and Programming

Richard Clark, Systems

Neal Elliott, Technical Studies

Susan Ratchford, Grants

Leland Veal, Assistant Director

Idaho

Department of Transportation

H. L. Day, Chief of Planning

Len Engel, Public Transportation Planner, Division of Planning

Darrell V. Manning, Director

Illinois

Department of Transportation, Division of Public Transportation

Ms. Joby Berman, Director

Jack A. Groner, Grant Coordinator

Joseph F. Ligas, Chief, Grant Administration

John Sajovec, Chief, Technical Studies and Program Development

Kentucky

Department of Transportation, Office of Transportation Planning

C. Ian McGillivray, Director, Division of Statewide Transportation Systems Planning

Paul Oakley, Policy Planning Section, Division of Statewide Transportation Systems Planning

Bruce Siria, Public Transportation Assistance, Division of Urban and Regional Planning

Maine

Department of Transportation, Bureau of Transportation Planning and Services

Gedeon Picher, Assistant Director

Maryland

Department of Transportation, Mass Transit Administration

Walter J. Addison, Administrator

Massachusetts

Department of Public Works, Bureau of Transportation Planning

Walter Kondo, Supervisor, Transportation Data

Robert Murphy, Special Assistant to Planning Director

Tom Richardson, Fiscal Planning Engineer

Michigan

Department of State Highways and Transportation, Bureau of Urban and Public Transportation

Gerald Geile, Project Manager, Dial-A-Ride Transportation

Minnesota

Richard L. Brown, Transportation Planner, Minnesota State Planning Agency

Ronald G. Hoffman, Chief, Transit Liaison Section, Minnesota Highway Department

Harry A. Reed, Head of Transportation Planning, Minnesota State Planning Agency

New Jersey

Department of Transportation, Division of Public Transportation

Edward H. P. Gilman, Executive Assistant to Director

Ronald C. Haas, Assistant to Directors

New York

Department of Transportation

David G. Putz, Associate Motor Carrier Transportation Specialist, Motor Carrier Operations Assistance Section, Development Division

Joseph C. Smith, Director, Finance Division

Ohio

Department of Transportation, Division of Engineering Design

Richard Henderson, Mass Transportation Engineer

Oregon

Department of Transportation

Jack Graham, Administrative Assistant

Dennis H. Moore, Administrator, Mass Transit Division

David Paoli, Transit Planner, Mass Transit Division

Robert E. Royer, Manager, Planning Section

Ronald Schaadt, Coordinator, Planning Section (Statewide Planning)

Marge Sorenson, Planner, Planning Section (Statewide Planning)

Pennsylvania

Department of Transportation, Division of Local and Area Transportation

William Underwood, Director, Bureau of Mass Transit Systems

Rhode Island

Department of Transportation

Richard Goldfine, Public Information Officer, Office of the Director

Marc Samet, Short Range Planning, Planning Division

Tennessee

Department of Transportation, Bureau of Mass Transit

B. T. Moore, Director

Utah

W. Ronald Delis, Statewide Transportation Planning Engineer, Utah State Department of Highways

Lowell Elmer, Sociologist, Route Analysis Studies, Utah State Department of Highways

John Inglish, Transportation Planning Engineer, Wasatch Front Regional Council

Elmer Johnson, Utah Transit Authority

Toshiharo Kano, Transportation Engineer, Utah State Department of Highways

George Thompson, Transportation Engineer, Urban Transportation Planning Studies Section, Utah State Department of Highways

Clint Tophan, Transportation Engineer, Urban Planning, Utah State Department of Highways

Wisconsin

Department of Transportation, Bureau of Transport Service

D. F. (Doug) Haist, Director

John M. Hartog, Chief, Urban Transit Assitance Section

James L. Smith, Chief, Intercity Transport Development

APPENDIX D

ANNOTATED BIBLIOGRAPHY

1. Ashford, Norman, "The Planning Function in State Departments of Transportation," Traffic Quarterly Vol. 27, No. 1, January 1973, pp. 49-63.
The author discusses the trends adopted to date that the various state DOT's in existence have followed with regard to approaches to multimodal planning. He classified all (as they currently exist into either: (1) an equal status division, or (2) an advisory staff agency. Recommendations point toward the evolvement of planning into a two-tier structure - with policy planning located in the Office of the Secretary and operational planning carried out by the Division of Planning as an equal status division.

2. Ballard, Cordelle K., "Transportation Dependents," Traffic Quarterly Vol. 21, No. 1, January 1967, pp. 83-90.
The author discusses the transportation needs of a large number of people throughout our country without adequate transportation facilities - elderly persons.

3. Baxter, McDonald and Company, Transportation in Iowa, A Review of Key Policy Issues, Berkeley, California, April 1969.
The material in this volume is addressed to the examination of five key transportation policy issues of prime importance to the State of Iowa. These are: (1) Regulation of Transportation, (2) Fragmentation of State Authority in Transportation, (3) Freight and Passenger Service to Small Towns, (4) Airport Planning, (5) Sharing of Responsibility in Highway Planning, (6) A Proposal for a Unified State Department of Transportation. In each case, the background of the issue is reviewed, central problems identified and analyzed, and recommendations as to the various solution alternatives.

4. Brazda, Richard L., et al., Mass Transit Management: A Handbook for Small Cities, Institute for Urban Transportation, Indiana University, Bloomington, Indiana, February 1971.
The aim of this handbook is to provide information for the management of mass transit, particularly small-scale operations in smaller cities in the U.S. It covers such facets as: (1) Organization and Finance, (2) Management and Control, (3) Operations, (4) Marketing.

5. Burco, Robert A., "Legislative Perspectives on the State Transportation Planning Process and on Transit Planning in California," presented at the 54th Annual Meeting of the Transportation Research Board, Washington, D.C., January 1975.
The State of California created a new multi-modal Department of Transportation in 1972, and has begun a major statewide transportation planning effort. This paper examines four concerns about multi-modal planning: (1) planning for operations versus planning for facilities; (2) relative emphasis on corridor versus local travel needs; (3) planning based on technical expertise and analytical technique versus public openness and broad participation; and (4) programming versus master planning.

6. Butler, Douglas L., "An Analysis of Rural Public Transportation in Iowa," unpublished M.S. thesis, Iowa State University, Ames, Iowa, 1975.
The current status of rural transit in Iowa is summarized in this thesis. Funding sources and other relevant operating guidelines are also presented.

7. Carstens, R. L. and Csanyi, L. H., "A Model for Estimating Transit Usage in Cities in Iowa," Highway Research Record 213, 1968, pp. 42-49.
This study developed a model for estimating annual totals for patronage and revenues using the following as independent variables: quantity of transit service provided, average fare, size of city, and proportion of population not in the working force.

8. Cudahy, Brian J., "Financing Transit: The Boston Experience," Highway Research Record 476, 1973, pp. 4-7.
Operational and Economic administrative experiences of a transit system are described. The history of the present Massachusetts Bay Transportation Authority is presented and its operating expenses, which are the source of the major problems, are discussed in detail. A brief discussion of statutory issues and proposed legislation conclude the paper.

9. Dueker, Kenneth J. and Bair, Brent O., Final Report: Transit Development Program for Iowa City, Coralville, and the University of Iowa, Center for Urban Transportation Studies, the Institute of Urban and Regional Research, University of Iowa, Iowa City, Iowa, 1974.
The purpose of the study is to develop for the Iowa City - Coralville urban area a five year transit development program which is consistent with its transportation needs, especially the needs of transit-dependent residents, and which is consistent with the goals and values of the residents of the area.

10. Fisher, Ronald J., "UMTA Plans and Policies for Transit Innovations," presented at the 54th Annual Meeting of the Transportation Research Board, Washington, D.C., January 1975.
The author discusses how the Service and Methods Demonstrations Program is structured to assist innovative efforts in public transportation. Some examples are mentioned, such as preferential treatment for buses in traffic, "para-transit," "user side" subsidy, as well as discussion of experimental demonstrations as opposed to exemplary demonstration projects.

11. Hart, William D., "Public Financial Support for Transit," Technical Study Memorandum No. 7, Technical Services Division, Highway Users Federation, Washington, D.C., 1973.
This study details the many ways in which states have provided assistance, either directly or through enabling legislation.

12. Hart, William D., "Compilation of State Laws," Appendix to Technical Study Memorandum No. 7 - Public Financial Support for Transit, Highway Users Federation, Technical Services Division, Washington, D.C., 1973.

The Appendix is a compilation of state laws which provide direct assistance for public transit, as well as public authority for local agencies to levy specific taxes, issue bonds, etc., for support of public transit. North Carolina, South Carolina, South Dakota, Vermont, and Wyoming had no applicable transit provisions as of December 31, 1972.

13. Heathington, Kenneth W. and Zobrak, Marcel J., An Analysis of Two Privately Owned Demand-Responsive Transportation Systems, The University of Tennessee, Transportation Research Center, Knoxville, Tennessee, 1973.
This paper analyzes two privately owned demand-responsive transportation systems that have been in operation for several years. One system operates in Davenport, Iowa, and the other in Hicksville, New York.

14. Institute for Defense Analysis, Economic Characteristics of the Urban Public Transportation Industry, Arlington, Virginia, 1972.
This study considers the economic aspects of urban public transportation. Bus transit, rail transit, and taxicab operations are separately considered. Also included is an analysis of external costs of public transportation, air pollution, noise and accident costs.

15. Iowa Office for Planning and Programming, Iowa Department of Transportation, a Design for Growth, Des Moines, Iowa, September 1971.
This report was prepared and submitted at the request of Governor Robert D. Ray for the purpose of: (1) analyzing the requirement for an Iowa Department of Transportation, (2) develop an understanding of the organizational and operational aspects of such an organization, and (3) identify issues which must be addressed in the decision making area requisite to organizational implementation.

16. Iowa State University, Engineering Research Institute, Integrated Analysis of Small Cities Intercity Transportation to Facilitate the Achievement of Regional Urban Goals, Ames, Iowa, 1974.
This report covers a study of the relationship between transportation system characteristics and the potential for growth in multi-county rural regions and their central place communities. Transportation system data for nine rural regions in Iowa are provided.

17. Kirby, Ronald F., Para-Transit: a Summary Assessment of Experience and Potential, The Urban Institute, Washington, D.C., 1974.
In response to a request by the DOT, the Urban Institute has conducted a review and evaluation of the use of para-transit modes. In this study the Institute has assessed the pertinence of para-transit serivces to urban travel needs and has marshaled arguments for action armed at taking gerater advantage of these services.

18. Kurnow, Ernest and Brief, Richard P., "Effecting Change in Public Policy: Financing Urban Transportation in the New York, New Jersey, and Connecticut Region," Highway Research Record 476, 1973, pp. 49-56.

In this study, an "enterprise" approach was adopted that would be applicable to the analysis of problems relating to financing urban transportation systems in any metropolitan area.

19. Michigan Department of State Highways and Transportation, Dial-A-Ride Transportation, Bureau of Urban and Public Transportation, Lansing, Michigan, December 1974.
This is a status report of the Michigan DART program. Community data, ridership trends, cost data, and community impacts are discussed.

20. New York Department of Transportation, Public Transportation Operating Assistance: Evaluation and Options, Planning Division, Albany, New York, January 1975.
This report is in response to a legislative mandate to evaluate the State Operating Assistance Program. The DOT determined the role of transit service, evaluated the current program, projected future transit deficits for various fares and service levels, developed and evaluated alternative programs and submitted findings for legislative consideration.

21. Oregon Department of Transportation, Intercity Bus Transportation in Oregon, Preliminary Report, Planning Section, Salem, Oregon, February 1975.
This study was undertaken to determine intercity bus transportation needs for inclusion in a comprehensive, integrated transportation system in Oregon. Current service, ridership patterns and demand potential are discussed and recommendations provided.

22. Orski, C. Kenneth, "UMTA: Future Directions," presented at the 54th Annual Meeting of the Transportation Research Board, Washington, D.C., January 1975.
The author discusses the implementation of the National Mass Transportation Assistance Act of 1974 as an agent of change in transportation planning concepts. Other, existing programs are mentioned, and their possible effect on planning.

23. Pennsylvania Department of Transportation, Operating Guidelines and Standards for the Mass Transportation Assistance Program, Bureau of Mass Transit, Harrisburg, Pennsylvania, January 1973.
To deal more effectively with problems confronting public transit systems, the DOT is developing the means of insuring that steps are taken by transit authorities and agencies to maximize transit services in proportion to the existing and potential demand and to improve efficiency. This report documents the initial efforts to establish guidelines to meet these objectives.

24. Reed, Marshall F., Jr., and Difiglio, Carmen, "Testing Urban Transit's Future," Technical Study Memorandum No. 10, Technical Services Division, Highway Users Federation, Washington, D.C., September 1974.
The study discusses the "sketch planning" process, developed for quick analysis of proposed improvements to public transit. It provides prompt answers to such questions as: what transit ridership and what

costs can be expected if only the present transit service levels are continued to 1990?; how many riders can be gained by greatly increasing the number of buses and what would be the cost?; and what is the likely ridership and cost resulting from adding grade separated rail or bus service?

25. Roth, Gabriel J., "Regulation of Buses in Cities," Highway Research Record 476, 1973, pp. 21-29.
This paper examines the main types of regulation. Conclusions are that controlling standards of safety, noise, and fumes to avoid the infliction of excessive costs on the public is generally desirable; regulating timetables, possibly in the form of subsidies to operators who keep them, may have merit; controlling route operation and fares may not serve a useful purpose; and restrictions on the introduction of new bus services are not logical. Grants related to passenger mileage on all or selected routes appear to be the most desirable form of subsidy, for they directly encourage the provision of services desired by travelers.

26. Rubina, Richard G., "A Quest for Integrated and Balanced Transportation Systems in State Government," Research Report 5 Transportation Center, Department of Urban and Regional Planning, the Florida State University, Tallahassee, Flordia, June 1971.
This report evaluates the present status and effectiveness of state departments of transportation, develops an understanding of the successes and failures to date, and evaluates state transportation functions in terms of constitutional, legislative, structural, and political restraints. Identification of the deficiencies of existing operations lead to recommendations for procedures to overcome the problems of fragmentation and lack of intergovernmental coordination.

27. Scheiner, James I., "The Demonstration of Free Transit," presented at the 54th Annual Meeting of the Transportation Research Board, Washington, D.C., January 1975.
The National Mass Transportation Assistance Act of 1974 provides $40 million for demonstrations of free transit over the next two years. The paper reviews four myths of free transit and discusses three specific applications for free transit.

28. Transportation Research Board, "Issues in Statewide Transportation Planning," Special Report 146, 1974.
This publication presents a summary of findings of a conference on statewide transportation planning held in Williamsburg, Virginia in February, 1974. The conference included workshops on (1) organization and administration, (2) policy planning, (3) systems planning and programming methodology (both passenger and freight), and (4) state and regional development.

29. Tye, William B., "Economics of Urban Transit Capital Grants," Highway Research Record 476, 1973, pp. 30-35.
This paper discusses the four arguments that support the restriction of federal grants to capital expenses of public transit and concludes

that each of these to be without merit. The conclusion is that funds should be allocated as a generalized subsidy to transit service rather than restricted to capital expenses.

30. U. S. Congress, Urban Mass Transportation Act of 1964 and Related Laws, U. S. Department of Transportation, Washington, D.C., November 1974.
This pamphlet sets forth the statutes authorizing and governing the conduct of the federal urban mass transportation program as of November 26, 1974. It includes the provisions of the original act, related laws, and amendments through this date.

31. U. S. Congress, Subcommittee on Economy in Government of the Joint Economic Committee, Hearings: Part 5. Federal Transportation Policy, U. S. Government Printing Office, Washington, D.C., 1970.
G. H. Bakke, Secretary, Wisconsin Department of Transportation, addressed the subcommittee on the subject of improving the allocation of federal transportation expenditures.

32. U. S. Department of Health, Education and Welfare, "Transportation for the Elderly; The State of the Art," DHEW Publication No. (OHD) 75-20081, Washington, D.C., January 1975.
The report transmits findings from a study of the state of the art of transportation for the elderly. The report covers existing public transportation, special systems, and personal transportation.

33. U. S. Department of Transportation, A Study of Revenue Mechanisms for Financing Urban Mass Transportation, National Technical Information Service PB 236 005, Springfield, Virginia, 1974.
This report covers the analysis of two revenue mechanisms for financing urban mass transportation, a transit fuel tax and an additional gasoline tax imposed in urban areas. The report includes an analysis of the magnitude of revenues that could be raised, tax rates required to raise these revenues, tax incidence, potential impact on transit usage, and mechanisms for tax collection.

34. Urban Mass Transportation Administration, "Capital and Operating Assistance Formula Grants; Interim Guidelines and Procedures," Federal Register Vol. 40, No. 8, Part IV, Washington, D.C., January 1975.
The pamphlet is the advanced notice of proposed rulemaking for distribution of Section 5 funds of the Urban Mass Transportation Act of 1964 as amended by the National Mass Transportation Assistance Act of 1974.

35. Wisconsin Department of Transportation, Operating Assistance Program for Urban Mass Transit, Information for Applicants, Division of Planning, Madison, Wisconsin, September 1974.
An information booklet describing the assistance programs and the application procedures for requesting mass transportation operating assistance. Reporting requirements are detailed.

36. Wisconsin Department of Transportation, Transportation Revenue, Allocation, Needs Study, Madison, Wisconsin, January 1974.

The study was undertaken to address the problem of securing adequate state revenues on a long-term basis for mass transit purposes and for the state trunk highway system. The report contains a summary of findings and recommendations for funding sources and allocations.

APPENDIX E

HISTORICAL DATA FOR URBAN TRANSIT PROPERTIES IN IOWA

Table 1. Historical summary of operating data, Ames.

Year	Service area population	Annual revenue passengers	Annual revenue miles of service	Annual operating revenues, $	Annual operating expenses, $
1974	42,100	104,000	101,000	23,901	56,777
1973	41,600	87,200	91,000	23,606	42,962
1972		Not Available			
1971	40,300	108,337	107,578	44,366	
1970	39,505	105,517	150,648	39,869	
1966-1969		Not Available			
1965	34,826	238,194	146,171	41,686	
1964	33,261	225,799	142,131	40,614	
1963	31,697	246,453	143,387	38,580	
1962	30,132	269,997	139,187	40,334	
1961	28,568	249,870	150,076	38,976	
1960	27,003	228,661	134,588	35,760	
1959	26,592	212,062	117,077	34,221	
1958	26,182	234,791	109,638	31,015	

Sources: 1973-1974, City of Ames. Revenue passengers and revenue miles estimated from passenger data (October-December, 1974), receipts, and route structure.
1970-1971, Iowa Transit Association.
1958-1965, Midwest Transportation, Inc.

Table 2. Historical summary of operating data, Burlington.

Year	Central city population	Service area population	Annual revenue passengers	Annual revenue miles of service	Annual operating revenues, $	Annual operating expenses, $
1974	31,500	34,785	328,196	244,377	51,403	158,379
1973	31,700	34,970	195,919	243,411	66,760	120,213
1972	31,900	35,155	193,737	245,217	67,037	106,068
1971	32,133	35,330	243,044	259,701	81,569	113,663
1970	32,366	35,505	336,377	307,489	92,930	103,894
1966-1969			Not Available			
1965	33,285	36,135	521,681	316,275	111,431	
1964	33,114	35,906	523,609	326,339	111,622	
1963	32,943	35,677	545,877	332,816	116,575	
1962	32,772	35,448	570,164	336,514	121,318	
1961	32,601	35,219	568,012	349,901	121,676	
1960	32,430	34,990	627,422	376,525	134,615	
1959	32,248	34,713	631,947	375,320	136,865	
1958	32,067	34,438	708,914	372,638	135,478	
1957	31,885	34,161	876,366	400,497	144,898	
1956	31,703	33,885	1,062,769	436,546	153,635	
1955	31,522	33,599	1,306,510	471,106	174,370	
1954	31,340	33,332	1,586,210	498,226	196,930	
1953	31,158	33,156	2,091,391	569,628	236,739	
1952	30,976	32,779	2,521,296	664,332	241,522	
1951	30,795	32,504	2,519,950	665,250		
1950	30,613	32,227	2,920,784	729,540		

Sources: 1974, Burlington Urban Service.
1950-1973, Burlington Transit Lines, Inc.

Table 3. Historical summary of operating data, Cedar Rapids.

Year	Central city population	Service area population	Annual revenue passengers	Annual revenue miles of service	Annual operating revenues, $	Annual operating expenses, $
1974	112,467	132,911	1,392,189	764,882	415,679	606,993
1973	113,033	132,821	1,185,064	722,527	343,718	444,762
1972	113,600	132,732	1,077,334	734,618	317,075	411,218
1971	112,121	130,701	1,149,961	800,713	318,113	419,191
1970	110,642	128,670	1,250,596	837,034	347,384	412,801
1969	109,223	126,699	1,398,391	793,093	363,271	391,459
1968	107,803	124,727	1,502,970	799,467	328,235	377,027
1967*	106,584	122,755	936,734	579,034	211,334	275,354
1966			Not Available			
1965	103,545	118,812	1,514,745	804,057	340,723	
1964	101,243	115,633	1,622,498	800,361	338,423	
1963	98,941	112,454	1,747,635	791,989	345,408	
1962	96,639	109,275	1,824,924	818,469	360,567	
1961	94,337	106,096	1,930,351	853,428	361,858	
1960	92,035	102,917	2,201,409	936,550	408,239	

*April - December, only.

Sources: 1967-1974, Regional Transit Corporation, Inc.
1960-1965, Cedar Rapids City Lines.

Table 4. Historical summary of operating data, Clinton.

Year	Service area population	Annual revenue passengers	Annual revenue miles of service	Annual operating revenues, $	Annual operating expenses, $
1974	35,633	523,187	281,050	102,888*	219,866*
1973	35,567	470,190*	304,728*	86,985*	234,201*
1972	35,500	493,806	313,786	91,147	212,563
1971	35,110	526,239	305,620	97,169	195,885
1970	34,719	575,761	308,959	100,297	174,130
1969	34,441	628,842	308,110	103,632	162,648
1968	34,164	652,713	313,054	108,004	158,690
1967	33,886	634,044	309,035	104,404	136,292
1966	33,609	605,313	310,617	99,683	131,293
1965	33,331	584,446	285,900	93,909	
1964	33,383	571,972	258,954	88,895	
1963	33,434	570,177	266,465	89,898	
1962	33,486	561,400	265,991	90,821	
1961	33,537	546,269	246,142	88,058	

* Estimated.

Sources: 1966-1974, Clinton Municipal Transit Authority.
1960-1965, Interstate Power Company.

Table 5. Historical summary of operating data, Council Bluffs.

Year	Service area population	Annual revenue passengers	Annual revenue miles of service	Annual operating revenues, $	Annual operating expenses, $
1974	61,367	742,845	527,810	271,260	453,758
1973	61,533	728,721	528,858	252,972	389,523
1972	61,700	906,981	604,538	316,184	451,113
1971	61,024	1,325,889	1,078,032	701,206	512,339
1970	60,348	1,530,987	1,128,295	709,786	723,427
1969	58,500	1,759,823	1,152,358	689,490	699,230
1968	56,652	1,763,360	1,099,329	685,950	690,520
1967	54,805	1,849,307	1,038,853	612,992	619,679
1966	52,957	1,950,157	838,779	491,868	486,072
1965	53,404	1,981,479	735,734	364,934	
1964	53,852	2,200,854	732,303	369,814	
1963	54,299	2,239,540	734,105	387,205	
1962	54,746	2,203,309	748,273	398,440	
1961	55,194	2,360,291	778,123	409,591	
1960	55,641	2,739,026	805,553	409,876	
1959	54,620	2,684,840	794,445	402,726	
1958	53,599	2,717,658	830,288	407,649	

Sources: 1971-1974, Metro Area Transit.
1958-1970, City Transit Lines, Inc.

Table 6. Historical summary of operating data, Davenport.

Year	Central city population	Service area population	Annual revenue passengers	Annual revenue miles of service	Annual operating revenues, $	Annual operating expenses, $
1974	99,300	99,300	939,123	672,206	254,188	555,884
1973	99,800	101,216	894,094	617,706	251,853	485,732
1972	100,300	100,300	878,110	625,824	281,084	487,551
1971	99,384	122,482	929,003	619,077	294,618	446,554
1970	98,469	120,595	1,056,267	713,638	325,206	432,032
1969	97,800	118,954	1,231,738	803,817	396,126	411,582
1968	97,132	117,313	1,601,237	897,304	423,293	432,150
1967	96,464	115,673	1,843,488	987,207	483,698	453,515
1966	95,796	114,032	1,925,199	996,165	496,337	438,395

Source: City Transit Authority.

Table 7. Historical summary of operating data, Des Moines.

Year	Central city population	Service area population	Annual revenue passengers	Annual revenue miles of service	Annual operating revenues, $	Annual operating expenses, $
1974	200,033	249,762	4,156,004	1,842,540	1,511,016	2,219,187
1973	203,767	250,524	3,956,004	1,806,563	1,553,169	1,919,785
1972	207,500	251,286	4,411,022	1,939,385	1,674,176	1,830,443
1971	204,044	246,028	4,936,700	2,171,185	1,733,001	1,768,710
1970	200,587	240,770	5,068,335	2,223,021	1,755,392	1,779,737
1969	202,125	240,507	5,661,501	2,272,508	1,684,075	1,717,833
1968	203,663	240,242	5,928,136	2,357,430	1,740,045	1,775,756
1967	205,201	239,980	6,399,741	2,414,970	1,768,678	1,792,708
1966	206,739	239,717	6,663,963	2,437,466	1,713,512	
1965	207,113	238,828	6,602,635	2,437,048	1,670,906	
1964	207,487	237,506	6,700,936	2,402,731	1,682,616	
1963	207,860	236,183	7,065,908	2,439,534	1,740,450	
1962	208,234	234,863	7,469,479	2,594,316	1,857,194	
1961	208,608	233,514	7,702,800	2,636,664	1,880,415	
1960	208,982	232,219	8,361,655	3,040,811	2,012,141	
1959	205,880	226,998	9,191,435	3,041,870	1,911,428	
1958	202,779	222,528	11,467,200	3,504,838	2,096,782	
1957	199,677	218,059	12,361,029	3,644,653	2,112,390	
1956	196,575	213,888	13,110,304	3,722,009	2,202,530	
1955	193,474	209,119	14,741,071	4,144,498	2,344,977	
1954	190,372	204,650	17,529,124	4,743,223	2,662,408	
1953	187,270	200,179	20,770,852	5,317,543	2,690,787	
1952	184,168	195,710	22,535,313	5,647,134		
1951	181,067	191,240	25,480,478	6,722,263		
1950	177,965	186,771	28,583,282	7,048,987		

Sources: 1966-1974, Des Moines Metropolitan Transit Authority.
1950-1965, Des Moines Transit Company.

Table 8. Historical summary of operating data, Dubuque.

Year	Central city population	Service area population	Annual revenue passengers	Annual revenue miles of service	Annual operating revenues, $	Annual operating expenses, $
1974	64,600	64,600	1,179,816	573,667	329,930	632,175
1973	65,200	66,837	1,594,749	597,955	324,292	769,290
1972	65,800	68,240	2,130,056	977,600	397,454	907,039
1971	64,054	66,478	2,509,064	1,064,161	455,917	896,177
1970	62,309	64,717	2,745,389	1,108,266	489,872	848,712
1969	62,445	64,837	3,454,262	1,262,558	518,460	870,794
1968	62,581	64,957	3,794,779	1,357,022	502,920	860,538
1967	62,717	65,077	3,875,880	1,339,968	512,970	794,296
1966	62,853	65,197	3,912,476	1,334,746	518,372	760,759
1965	61,812	64,140	3,305,315	1,023,926	417,815	
1964	60,771	63,083	3,207,484	1,031,612	408,626	
1963	59,730	61,984	3,187,760	1,027,538	410,839	
1962	58,688	60,885	3,290,178	1,058,831	430,867	
1961	57,647	59,787	3,159,746	1,048,326	415,759	
1960	56,606	58,688	3,251,581	1,022,725	427,187	
1959	55,912	57,956	3,209,225	970,703	424,586	
1958	55,219	57,224	2,955,314	938,034	388,762	
1957	54,526	56,492	2,970,859	947,936	392,764	
1956	53,832	55,760	3,364,237	1,078,617	448,189	
1955	53,138	55,028	3,627,509	1,130,306	484,231	
1954	52,445	54,296	3,985,019	1,170,930	533,140	
1953	51,752	53,564	5,076,328	1,214,245	542,792	
1952	51,058	52,832	5,758,109	1,183,362	539,544	
1951	50,364	52,100	6,363,590	1,259,353	536,401	
1950	49,671	51,368	6,846,974	1,248,068	470,127	

Sources: 1974, Key Line.
1973, Interstate Power Company and KeyLine.
1950-1972, Interstate Power Company.

Table 9. Historical summary of operating data, Ft. Dodge.

Year	Service area popualtion	Annual revenue passengers	Annual revenue miles of service	Annual operating revenues, $
1966-1974	Not available. Closed operation in July, 1967.			
1965	29,654	446,245	236,820	72,539
1964	29,403	442,476	212,342	71,971
1963	29,152	468,103	221,390	79,508
1962	28,901	496,568	221,269	80,378
1961	28,650	503,003	216,657	81,631
1960	28,399	529,559	218,398	84,730
1959	28,071	575,058	211,539	76,382
1958	27,742	563,415	211,161	69,696
1957	27,414	567,211	209,093	66,938
1956	27,085	636,966	241,784	75,277

Sources: 1956-1965, Fort Dodge Transportation Co.

Table 10. Historical summary of operating data, Iowa City.

Year	Central city population	Service area population	Annual revenue passengers	Annual revenue miles of service	Annual operating revenues, $	Annual operating expenses, $
1974	46,967	48,342	1,413,400	475,057	212,691	468,000
1973	47,433	48,785	1,303,824	471,477	195,569	409,760
1972	47,900	49,227	1,268,813	———	191,533	350,905
1971			Not Available			
1970	46,850	48,115	491,207	284,573	122,798	
1969	45,573	46,807	662,501	———	142,555	
1968	44,297	45,500	860,966	———	121,065	
1967	43,020	44,193	917,422	264,484	91,742	
1966	41,744	42,886	500,597	223,513	87,172	
1965	40,467	41,578	442,622	231,753	84,806	
1964	39,062	40,119	434,853	242,472	80,141	
1963	37,657	38,660	441,227	228,100	81,588	
1962	36,253	37,202	419,874	237,046	79,558	
1961	34,848	35,743	403,399	253,649	76,923	
1960	33,443	34,284	409,896	255,990	82,606	
1959	32,820	33,622	505,438	257,716	84,697	

Sources: 1968-1974, Iowa City Transit.
1959-1967, Iowa City Coach Co.

Table 11. Historical summary of operating data, Marshalltown.

Year	Service area population	Annual revenue passengers	Annual revenue miles of service	Annual operating revenues, $	Annual operating expenses, $
1974	27,233	85,000	45,000	21,237	40,350
1973	27,667	67,000	71,000	16,787	36,207
1971-1972		Not Available			
1970	26,219	260,855	158,408*	52,173	
1966-1969		Not Available			
1965	24,370	325,021	153,810	59,872	
1964	24,000	335,809	145,075	54,442	
1963	23,630	357,949	139,698	47,770	
1962	23,261	363,230	139,875	46,907	
1961	22,891	386,951	133,532	47,525	
1960	22,521	402,605	129,224	43,679	
1959	22,251	435,964	129,490	45,458	
1958	21,981	397,316	129,288	41,319	
1957	21,711	397,316	129,211	40,068	
1956	21,441	386,117	129,580	39,625	

* Extrapolated from records available for nine months only.

Sources: 1973-1974, Marshall Motor Coach. Estimated from route structure and financial records.
1970, Iowa Transit Association.
1956-1965, Marshall Motor Coach.

Table 12. Historical summary of operating data, Mason City.

Year	Service area population	Annual revenue passengers	Annual revenue miles of service	Annual operating revenues, $	Annual operating expenses, $
1974	31,333	98,000	90,000	29,000	47,000
1973	31,667	100,000	90,000	30,625	48,625
1971-1972		Not Available			
1970	30,491	379,173	207,340	44,611	
1966-1969		Not Available			
1965	30,700	589,072	250,280	77,962	
1964	30,688	588,936	281,700	77,076	
1963	30,676	554,277	337,833	80,168	
1962	30,665	501,400	296,580	79,128	
1961	30,654	502,570	290,460	75,375	
1960	30,642	505,759	289,200	70,480	
1959	30,376	528,325	287,100	75,266	
1958	30,110	488,746	285,200	70,487	
1957	29,843	542,832	308,995	72,520	

Sources: 1973-1974, Public Transit Company. Revenue passengers and revenue miles estimated by operator; operating revenues and expenses estimated from fare structure, route structure, and operator's records.
1970, Iowa Transit Association
1957-1965, City Transit, Inc.

Table 13. Historical summary of operating data, Muscatine.

Year	Service area population	Annual revenue passengers	Annual revenue miles of service	Annual operating revenues, $
1971-1974		Not Available. Ceased operation June 30, 1971.		
1970	22,405	227,578	———	41,187
1965-1969		Not Available		
1964	21,775	280,921	134,529	48,139
1963	21,576	293,219	138,475	48,869
1962	21,376	300,584	143,361	51,162
1961	21,176	280,161	136,810	43,411
1960	20,997	315,354	132,635	46,048
1959	20,801	327,378	131,534	46,582
1958	20,606	321,289	131,652	42,598
1957	20,410	326,196	135,537	41,782
1956	20,215	346,726	140,831	43,963

Sources: 1970, Iowa Transit Association
1956-1964, Midwest Transit Lines of Muscatine.

Table 14. Historical summary of operating data, Ottumwa.

Year	Service area population	Annual revenue passengers	Annual revenue miles of service	Annual operating revenues, $	Annual operating expenses, $
1974	29,833	356,460	219,726	87,898	187,855
1973	29,767	325,216	203,197	81,304	187,000
1971-1972		Not Available			
1970	29,610	759,184	309,834	136,548	
1966-1969		Not Available			
1965	31,740	1,014,428	377,575	199,131	
1964	32,167	1,123,874	324,544	163,437	
1963	32,593	1,065,588	323,472	153,037	
1962	33,019	1,101,832	330,032	164,578	
1961	33,445	1,109,104	338,720	160,749	
1960	33,871	1,226,338	345,007	169,104	
1959	33,847	1,174,984	348,754	159,404	
1958	33,823	973,854	341,199	133,698	
1957	33,799	971,597	335,807	137,032	
1956	33,775	1,044,588	350,826	145,046	
1955	33,751	1,247,609	414,955		
1954	33,727	1,503,891	574,955		
1953	33,703	1,821,050	644,161		
1952	33,679	2,029,740	616,288		

Sources: 1973-1974, Ottumwa Transit Authority and Ottumwa Transit Lines. Estimated from route structure, fare structure, financial records, and ridership survey (September-December, 1974)
1970, Iowa Transit Association.
1952-1965, Ottumwa Transit Lines.

Table 15. Historical summary of operating data, Sioux City.

Year	Central city population	Service area population	Annual revenue passengers	Annual revenue miles of service	Annual operating revenues, $	Annual operating expenses, $
1974	89,933	97,899	1,387,816	630,486	344,862	669,049
1973	88,967	96,921	1,132,537	537,893	311,928	439,650
1972	88,000	95,943	810,334	496,834	248,727	352,844
1971	86,962	94,884	863,300	539,520	302,164	383,524
1970	85,925	93,845	985,725	619,000	281,917	360,255
1969	86,248	94,156	569,205	475,000	162,792	321,793
1966-1968			Not Available			
1965	87,542	95,178	1,714,220	898,580	391,501	
1964	87,865	95,413	1,785,714	958,482	412,495	
1963	88,189	95,650	1,997,061	980,317	460,906	
1962	88,512	95,886	2,419,033	1,003,553	474,425	
1961	88,836	96,123	2,503,119	1,037,930	474,872	
1960	89,159	96,359	2,858,350	1,083,837	509,186	
1959	88,642	95,678	3,033,641	1,087,844	518,900	

Sources: 1969-1974, Sioux City Transit.
1959-1965, Sioux City Lines.

Table 16. Historical summary of operating data, Waterloo.

Year	Central city population	Service area population	Annual revenue passengers	Annual revenue miles of service	Annual operating revenues, $	Annual operating expenses, $
1974	76,033	108,576	744,897	521,722	166,853	422,745
1973	76,367	108,153	598,339	502,380	162,721	351,897
1972	76,700	107,729	566,270	443,757	169,650	338,044
1971	76,116	106,429	640,947	475,319	192,160	345,550
1970	75,533	111,343	813,442	631,930	244,033	366,321
1969	75,156	110,315	1,030,410	739,829	282,676	349,665
1968	74,778	109,286	1,102,757	780,614	273,544	323,282
1967	74,400	108,256	1,191,434	729,346	286,386	319,891
1966	74,023	107,228	1,274,465	630,766	288,578	

Source: Metropolitan Transit Authority of Black Hawk County, Inc.

APPENDIX F

TRANSIT SERVICE

REPORTING FORMS

The reporting schedules included in this Appendix have been compressed in the interest of reducing page requirements. The intent here is to suggest the extent of data which should be obtained by the Public Transit Division without particular concern for the schedule design.

Iowa DOT - PTD Schedule 1

Service Characteristics and Operating Equipment Inventory

I. Transit Agency

Name _____

Address _____

_____

Telephone _____

Individual Responsible for Daily Operations

Name _____

Address _____

_____

Telephone _____

Population of Service Area _____

Number of Employees _____

Employees Providing Revenue Service _____
(Bus operators, dispatchers, etc.)

II. Service Characteristics Data - Regular Routes

Route Name & #	Round Trip Route Length (miles)	Number of Vehicles Used		Headways (minutes)		Round Trip Time			Daily Revenue Miles	Daily Revenue Hours	Average Daily Passengers Served	Average Daily Fare-Box Revenue
		Peak	Off-Peak	Peak	Off-Peak	Running Time	Lay-over	Total				
Totals												
									Receipts from Passes not Attributable to Specific Routes			
									Total Passenger Fare Revenues			

III. Service Characteristics Data - Special Routes

Special Services might include express routes, urban school routes, special commuter routes, or other services not included as a Contract service. Not all characteristics may be applicable to each service.

Service Description	Round Trip Route Length (miles)	Number of Vehicles Used	Headways (minutes)	Daily Revenue Miles	Daily Revenue Hours	Average Daily Passengers	Average Daily Fares $

IV Fare Structure

	Base Fare	Transfers	Student Fares	Elderly Fares	Other Cash Fares	Tokens or Passes	
						Price	Period of Use
A. Regular Service							
B. Special Services							

V Revenue Contracts

Revenue Contracts to be considered include, but are not limited to, the following: on-board advertising, school transportation contracts, special employee transportation contracts, charter service, equipment or space rental, etc.

Contract Description	Current Contract Period	Annual Ridership	Annual Revenues	Estimated Annual Expenses attributed to service

VI Expense Contracts

Expense contracts to be considered should include, but are not limited to, the following: management and consulting service contracts, fuel and lubricant contracts, building or space rental, maintenance insurance contracts, employee contracts, etc.

Contract Description	Current Contract Period	Estimated Contract Expense

VII Detailed Operating Expenses

Items included in this section are to be summarized for the current fiscal year as well as the two previous fiscal years.

	Actual 19__	Actual 19__	Current Year Estimated 19__
A. Labor			
1) Management	____	____	____
2) Operator's Wages	____	____	____
3) Maintenance Personnel	____	____	____
4) Other Hourly Wages	____	____	____
5) Fringe Benefits			
6) Social Security Taxes			
7) Other	____	____	____
B. Transportation			
1) Fuel and Lubricants (not to include state and federal taxes)			
2) Tires and Tubes			
3) Other	____	____	____
C. Maintenance and Utilities			
1) Maintenance Contracts (See Section VI)			
2) Revenue Equipment (parts, supplies, painting, etc.)			
3) Non-Revenue Equipment (upkeep and repair of buildings, grounds, and non-revenue vehicles)			
4) Utility Costs	____	____	____

	Actual	Actual	Current Year Estimated
	19__	19__	19__
D. Administrative			
1) Management Service (See Sect. VI)			
2) Marketing Expenses (See Sect. VI)			
3) Legal & Audit (not to include transit system or city employee costs)			
4) Office Expenses (supplies, telephone, banking services, travel expenses, etc.)			
5) Other _____			
_____	____	____	____
E. Insurance and Safety			
1) Public Liability and Property Damage Insurance			
2) Injuries and Damages (costs not covered by insurance, safety promotion programs)			
3) Workmen's Compensation Insurance			
4) Other Insurance (luggage & cargo insurance, fire and theft insurance, non-covered losses)			
	____	____	____
F. Operating Taxes & Fees			
1) Vehicle Registration			
2) Federal Fuel and Oil Taxes ____		____	____
3) State Fuel and Oil Taxes ____		____	____
4) Real Estate and Property Taxes			
5) Other Taxes or Assessments			
	____	____	____

	Actual 19__	Actual 19__	Current Year Estimated 19__
G. Other Operating Expenses			
Document other operating expenses not included in above items.			
	____	____	____
H. Total Cash Expenditures	____	____	____

VIII Contributed Services

Services which are directly related to the operation of the transit system but are not directly paid by the agency should be estimated. The types of services considered here might be installation of bus route signs or passenger shelters by municipal personnel which were not directly billed to the agency or included as "cash" subsidy. These contributions must be estimated for the current fiscal year plus the two previous fiscal years.

Description of Service	Agency Providing Service	Estimated Costs FY____	FY____	FY____

IX Other Non-Operating Expenses

	Estimated Costs FY____	FY____	FY____
Depreciation			
Bond Retirement			
Interest			
_____			

X Revenue Equipment Inventory

Vehicle Number	Make	Year	Model	Seating	Estimated Miles Current Fiscal Year	Total Accumulated Mileage	Comments

Iowa DOT - PTD Schedule 2

Summary of Operating Expenses and Receipts

Operating Expenses	Actual FY 19__	Actual FY 19__	Estimated FY 19__
A. Labor			
1. Management	____	____	____
2. Operators' Wages	____	____	____
3. Maintenance Personnel	____	____	____
4. Other Hourly Wages			
5. Fringe Benefits			
6. Social Security Tax			
7. Other			
Subtotal	____	____	____
B. Transportation			
1. Fuel and Lubricants			
2. Tires and Tubes			
3. Other			
Subtotal	____	____	____
C. Maintenance and Utilities			
1. Maintenance Contracts			
2. Revenue Equipment			
3. Non-Revenue Equipment			
4. Utility Costs			
Subtotal	____	____	____

	Actual FY 19__	Actual FY 19__	Estimated FY 19__
D. Administrative			
1. Management Service Contracts			
2. Marketing Expenses			
3. Legal and Audit			
4. Office Expenses			
5. Other			
_____			
_____			
Subtotal	____	____	____
E. Insurance and Safety Expenses			
1. Public Liability and Property Damage Insurance			
2. Injuries and Damages			
3. Workmen's Compensation			
4. Other Insurance			
_____			
_____			
Subtotal	____	____	____
F. Operating Taxes			
1. Vehicle Registration			
2. Federal Fuel and Oil Taxes			
3. State Fuel and Oil Taxes			
4. Real Estate and Property Taxes			
5. Other taxes or assessments			
_____			
_____			
Subtotal	____	____	____

	Actual FY 19__	Actual FY 19__	Estimated FY 19__
G. Other Operating Expenses			
1._____			
2._____			
Subtotal	____	____	____
H. Total Cash Expenditure			
1._____			
2._____			
Subtotal	____	____	____
I. Total Contributed Services			
1._____			
2._____			
Subtotal	____	____	____

Receipts

A. Regular Route Service			
1. Base Fares			
2. Transfer Fares			
3. Student Fares			
4. Elderly Fares			
5. Passes or Tokens(not included above)			
6. Other (specify)			
Subtotal	____	____	____

	Actual FY 19__	Actual FY 19__	Estimated FY 19__
B. Special Service Receipts			
1. Express Routes			
2. School Bus Routes			
3. Other (specify)			
Subtotal	____	____	____
C. Contract Receipts			
1. Charter Service			
2. School Bus			
3. Advertising			
4. Rental			
5. Other (specify)			
Subtotal	____	____	____
D. Subsidy Cash Receipts			
1. Municipal			
2. County			
3. State			
4. Federal			
5. Other (School districts, Businesses, etc.)			
Subtotal	____	____	____

Iowa DOT - PTD Schedule 3

Managemement and Operational Plan Report, FY ____

I. Transit Agency

Name _____

Address _____

_____

Telephone _____

Individual Responsible for Daily Operation

Name _____

Address _____

_____

Telephone _____

Population of Service Area _____

Employees _____

Employees Providing Revenue Service (Bus Operators, dispatchers, etc. _____

Describe any changes in ownership and management which are planned during the fiscal year indicating reasons for the change and expected impact of such change.

II. Service Characteristics Data - Regular Routes

Any changes in the level of service planned during the year should be discussed. Discussion should include:

- Date the change is expected
- Relationship between existing and planned service
- Relationship to overall transportation plans of community
- Expected impact upon ridership, expenses and revenues

The route characteristics data are to be summarized on the attached Exhibit II Form. All existing routes offered are to be summarized even if no changes in service are planned.

III. Service Characteristics Data - Special Routes

Discuss any changes in the types or levels of service planned during the year including the items discussed under II above.

Special route service data are to be summarized on the attached Exhibit III form. All existing services are to be summarized even if no changes in service are planned.

IV. Fare Structure

Any changes in fare which are planned should be discussed. The discussion should include:

- Date of implementation
- Special features such as time of day which fare is applicable, special groups, etc.
- Expected impact on ridership, revenues and expenses

V. Revenue Contracts

Discuss each new or revised revenue contract indicating the nature of the contract, the anticipated date of initiation, the impact on revenues and equipment needs.

VI. Expense Contracts

As in Section V, discuss new contracts and impacts on annual expenses for contract items.

VII. Capital Improvements

Describe any capital improvements which are to be undertaken and discuss the impact of the improvement upon operating revenues and expenses. If the agency has applied or will be applying for capital grant funds and the application is on file with the Public Transit Division, only a brief description is necessary.

VIII. Traffic Flow Changes

Several developments within the community may be planned which are of value to the operation of the transit system but are not necessarily funded by the operating agency. These might include provision of bus turnouts, provision of fringe area parking spaces at express route stations, preferential use of roadway lanes, adjustment of the supply or price of parking, etc.

Each such alteration should be described, the expected date of implementation given, and the impact of each improvement discussed.

IX. Marketing and Promotion

The operating agency should describe the specific marketing activities which are to be undertaken during the year. The marketing plan should indicate the nature of the activity and the estimated costs. Specific items to consider include, but are not limited to the following:

Market surveys; ridership surveys; special generator studies; radio, TV, and newspaper advertising; direct mail advertising; special, reduced or free fare promotions; development and distribution programs for route maps and schedules; and promotional materials (calendars, pens, etc.)

Table 12. Historical summary of operating data, Mason City.

Year	Service area population	Annual revenue passengers	Annual revenue miles of service	Annual operating revenues, $	Annual operating expenses, $
1974	31,333	98,000	90,000	29,000	47,000
1973	31,667	100,000	90,000	30,625	48,625
1971-1972		Not Available			
1970	30,491	379,173	207,340	44,611	
1966-1969		Not Available			
1965	30,700	589,072	250,280	77,962	
1964	30,688	588,936	281,700	77,076	
1963	30,676	554,277	337,833	80,168	
1962	30,665	501,400	296,580	79,128	
1961	30,654	502,570	290,460	75,375	
1960	30,642	505,759	289,200	70,480	
1959	30,376	528,325	287,100	75,266	
1958	30,110	488,746	285,200	70,487	
1957	29,843	542,832	308,995	72,520	

Sources: 1973-1974, Public Transit Company. Revenue passengers and revenue miles estimated by operator; operating revenues and expenses estimated from fare structure, route structure, and operator's records.
1970, Iowa Transit Association
1957-1965, City Transit, Inc.

Table 13. Historical summary of operating data, Muscatine.

Year	Service area population	Annual revenue passengers	Annual revenue miles of service	Annual operating revenues, $
1971-1974		Not Available. Ceased operation June 30, 1971.		
1970	22,405	227,578	———	41,187
1965-1969		Not Available		
1964	21,775	280,921	134,529	48,139
1963	21,576	293,219	138,475	48,869
1962	21,376	300,584	143,361	51,162
1961	21,176	280,161	136,810	43,411
1960	20,997	315,354	132,635	46,048
1959	20,801	327,378	131,534	46,582
1958	20,606	321,289	131,652	42,598
1957	20,410	326,196	135,537	41,782
1956	20,215	346,726	140,831	43,963

Sources: 1970, Iowa Transit Association
1956-1964, Midwest Transit Lines of Muscatine.